Monthly Newsletter
The Agtech Industry

SOYBEANS UNDER SIEGE: TARIFF FALLOUT AND ADM'S SUPPLY CHAIN RESILIENCE STRATEGY

Our Investment Thesis

The U.S. agricultural sector is under renewed pressure following the April 2025 tariffs, which impose duties of up to 50% on imports from over 80 countries. **Input costs are rising sharply—fertilizer prices could climb over $100 per ton, while machinery and electronics face 7–8% hikes due to steel and component surcharges.** Retaliatory tariffs have hit exports hard, with China's duties on U.S. soybeans now exceeding 114%. As Brazil cements its position as China's preferred supplier, U.S. soybean exports have fallen to a 12-year low, forcing farmers to navigate a 17% price drop and sustained cost inflation that continues to squeeze margins.

These shocks are cascading across the value chain. Multinationals like ADM and Bunge face EBITDA compression of 5–12% as global trade routes tighten, while small and mid-sized farms—already strained by thin margins—risk financial distress. **Agtech startups are delaying projects due to rising capex and component costs.** Even as Washington considers relief packages, the real challenge is policy instability, which continues to disrupt planning cycles and investment confidence. Without meaningful trade resolution or market diversification, volatility is likely to persist through 2025. **In this context, we believe operational flexibility and strategic foresight—not just scale—will define resilience.**

Company Spotlight

Archer-Daniels-Midland Company (NYSE:ADM)

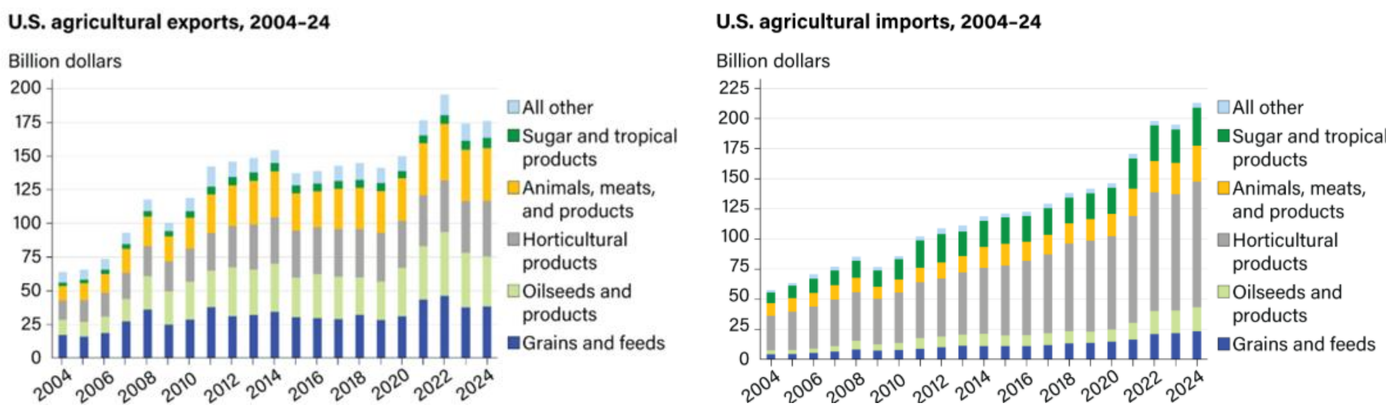
ADM is navigating a tough 2024, with softer earnings and ongoing trade uncertainty. However, its diversified model limits direct soybean exposure, and the company is actively repositioning through cost-cutting measures and a strategic alliance with Mitsubishi. The partnership aims to strengthen supply chain resilience and tap into growth across Asia and Latin America, reducing geopolitical risk. While earnings are set to decline again in 2025, the company offers a 4.2% dividend yield and maintains a stable valuation.

U.S. Agricultural Trade Dynamics: 2020-24

Between 2020 and 2024, U.S. agricultural trade exhibited a complex mix of consistent export performance, growing import reliance, and evolving regional dynamics. East Asia and North America remained the core destinations for U.S. agricultural exports, collectively accounting for 63% of total export value. **Key export commodities included grains and feeds, oilseeds, livestock products, and horticultural goods—together comprising 90% of total exports.** Among these, soybeans, corn, beef, pork, and dairy led in value, while fruits, tree nuts, oilseeds, and food grains like rice and wheat had the highest export shares, each exceeding 40% of domestic production. Although U.S. exports reached a record high in 2022, they declined in 2023 due to falling global commodity prices, a strong dollar, and shifting demand—particularly in corn and soybeans. **Notably, in 2024, export values rebounded modestly by $1.8 billion (1%), reaching the third-highest level on record.** However, despite fluctuations in export values, the share of total U.S. agricultural production sold abroad has held steady at ~20%—a level largely unchanged since 2008—suggesting a plateau in international market penetration and signaling room for future growth.

Regionally, North America and East Asia drove export growth, with Mexico surpassing both China and Canada in 2024 to become the largest market at $30.3 billion. Exports to Mexico included a mix of bulk (corn, soybeans) and high-value (pork, dairy, poultry) products. Canada followed closely with $28.4 billion, driven by demand for bakery goods, fruits, beverages, and ethanol. In contrast, U.S. exports to China fell by 15% to $24.7 billion due to rising competition from South America. Notably, the European Union (EU), while smaller in comparison, saw record imports from the U.S. in 2024—especially in tree nuts and distilled spirits—reaching $12.8 billion. Additionally, Southeast Asia (led by the Philippines, Vietnam, and Indonesia) emerged as another growing destination. **Overall, we note that U.S. exports remain strong in raw agricultural goods, while processed items like sweeteners and baked goods see lower export shares, reflecting strengths in commodities and limits in processed food trade.**

Chart 1: U.S. Agricultural Exports and Imports, 2004-2024



Source: U.S. Department of Agriculture (USDA)

On the import side, the U.S. agricultural sector experienced a more accelerated trajectory. From 2014 to 2024, imports grew by 6% annually—reaching a record $213 billion in 2024. **This growth was driven primarily by high-value horticultural products such as fruits, vegetables, alcoholic beverages, and essential oils.** Countries like Mexico, Canada, and the EU accounted for ~60% of U.S. agricultural imports, with Mexico alone supplying one-third of imported fruits and vegetables. South American nations, led by Brazil, Colombia, and Peru, supplied products with seasonal or comparative advantages, such as sugar, cocoa, and tropical fruits. Additionally, the demand for beef, tropical goods, and vegetable oils (for biofuel) further pushed import growth. As a result, the import share of total food and beverage consumption steadily rose to 16% by 2022, reflecting U.S. consumers' growing reliance on foreign sources for year-round availability and product diversity. **Notably, these trends also underscore the transition of the U.S. from a consistent agricultural trade surplus to a net importer since 2019—a shift largely driven by the divergence in export and import growth rates.**

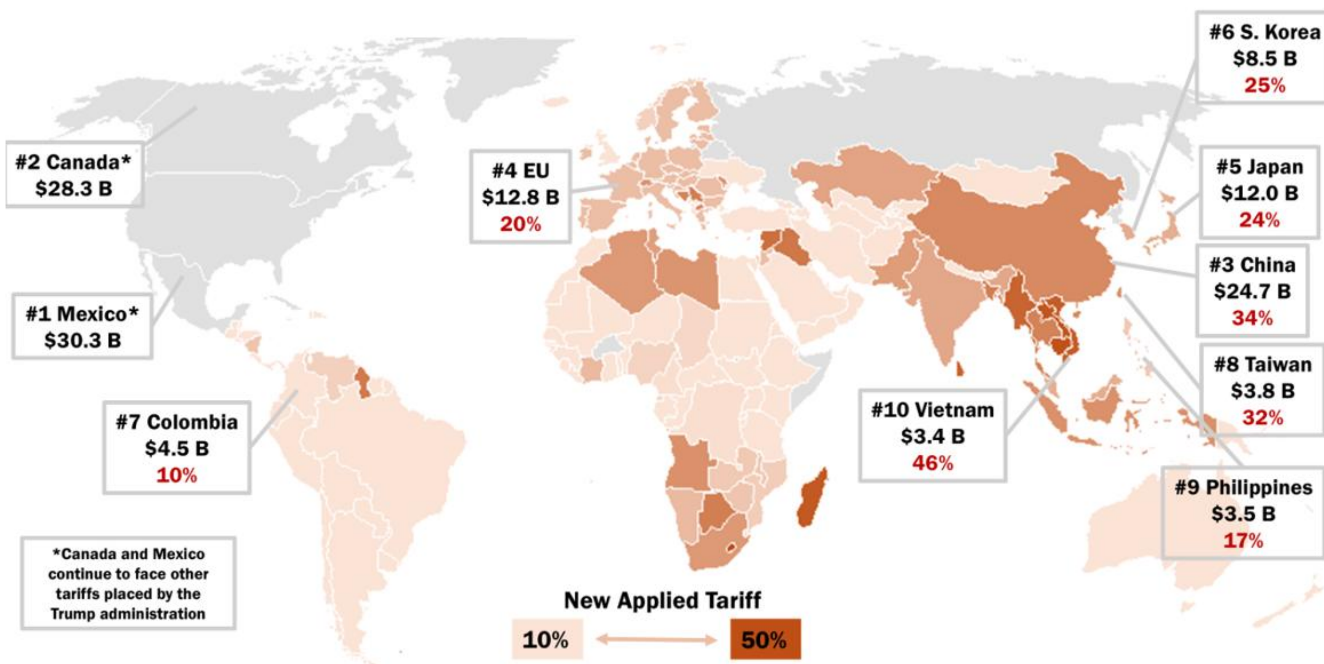
Implications of Recent Agricultural Tariffs on U.S. Agribusiness Sector

The U.S. agricultural sector is entering a period of heightened uncertainty following the implementation of sweeping new tariffs that took effect on April 5, 2025. **The policy, introduced by the Trump administration, imposes a 10% baseline tariff on nearly all imports, with certain goods from 83 countries facing duties as high as 50%.** Designed as a measure to bolster domestic industry and promote economic sovereignty, the move is already reshaping both input costs and global market access for American agribusinesses. While a few critical carve-outs—such as those for potash-based fertilizers and veterinary pharmaceuticals—have helped blunt the initial blow, the broader framework significantly raises inflationary pressures across the farm supply chain. **We note that U.S. farmers remain heavily reliant on imported machinery components, fertilizers, and specialty inputs; and that tariffs on steel, aluminum, and electronic systems used in agricultural production are already driving operational expenses higher.**

Input costs are expected to rise sharply, with some estimates indicating that fertilizer prices could jump by over $100 per ton. For machinery and equipment—often assembled with imported steel and embedded electronics—the cost increase is projected in the 7–8% range. These additional burdens come at a time when most producers lack the pricing power to pass through higher costs to consumers, particularly in a relatively low-inflation domestic environment. As a result, margins for farmers and food producers are expected to tighten, and smaller agribusinesses, which lack the scale of multinational exporters, may find themselves at an economic tipping point. **We believe that rising costs and limited pricing flexibility could trigger a wave of consolidation within the industry, especially in regions already struggling with farm bankruptcies and declining rural investment.**

On the export front, the challenges are mounting just as quickly. Retaliatory tariffs from key trading partners have already begun to take effect. **China, the third-largest market for U.S. agricultural exports, has introduced a new round of tariffs that raise duties on American goods by 34%, effective April 10.** These new levies build upon existing ones, bringing total applied tariffs to 114.73% for soybeans, 74% for in-quota cotton, and 99% for swine offal. Canada has responded with 25% duties on $30 billion worth of U.S. products, including staples like orange juice, peanut butter, and coffee, and has threatened to expand this list to cover $155 billion in U.S. imports. **Additionally, the EU has also hinted at retaliatory measures targeting U.S. beef, poultry, and soybean exports—potentially further narrowing access to critical international markets.**

Chart 2: New Reciprocal Tariffs Among Top 10 Agricultural Export Markets in 2024



Source: American Farm Bureau Federation.

Notably, these developments echo the 2018–2019 trade war, during which U.S. agricultural exports fell by more than $27 billion. We believe the current trajectory risks a similar outcome, particularly given how foreign buyers, once alienated, often restructure supply chains permanently. During the previous tariff cycle, nations such as China and the EU shifted their sourcing to Brazil, Argentina, and Australia, and many of those relationships endured even after tariffs were rolled back. U.S. producers may once again struggle to recover lost market share in the face of aggressive global competition and persistent trade volatility. **Companies like Archer-Daniels-Midland (ADM), Bunge, and Tyson Foods—key players in global commodity flows—are already signaling caution.** With China and Canada imposing broad barriers on U.S. exports, the volume of outbound shipments is likely to decline over the next two quarters. **Earnings forecasts suggest EBITDA compression in the range of 5–12% for large-cap agribusinesses, as firms absorb both declining international demand and rising domestic input costs.** Meanwhile, firms tied to domestic capital investment, such as John Deere and AGCO, are reporting rising production costs due to tariffs on steel and imported components, and these expenses are increasingly being passed down to farmers.

Agtech startups and Controlled Environment Agriculture (CEA) companies, which represent the next generation of farming innovation, are also being squeezed. These firms often depend on imported electronics and Canadian-made structures for greenhouse systems and vertical farms. Tariffs on Canadian steel and finished components—reinstated as of March 13, 2025—are raising capex outlays and delaying new projects. **We opine that this is likely to slow the pace of innovation in the sector, as firms face rising costs, tighter funding environments, and mounting supply chain unpredictability.** As one exhibitor at the recent Indoor Ag-Con conference in Las Vegas put it, "We're seeing price volatility not just in inputs, but also in infrastructure." Expansion plans that were once slated for this year are being revised, delayed, or shelved altogether. Notably, the broader consumer impact is also beginning to unfold. **Proposed tariffs on produce imports from Mexico, including tomatoes and peppers, are expected to reduce availability during off-seasons, driving up prices and straining food service providers.** This inflation could nudge consumer behavior away from specialty produce and toward more basic, staple vegetables. We believe that the knock-on effect may further hurt sectors like floriculture and hydroponic farms that focus on high-margin crops or decorative plants, which tend to be more price-sensitive.

In response to mounting pressure, policymakers are beginning to discuss relief options. **A congressional aide recently indicated that a new aid package is under consideration and may exceed the $10 billion approved last year.** During the previous trade war, farmers received more than $23 billion in federal aid. While such assistance may provide temporary relief, we believe it does little to address the core issue of policy instability, which continues to undermine long-term planning for producers, equipment manufacturers, and exporters alike. The underlying challenge is not just about tariffs, but about the volatility they represent. Farmers and agribusinesses operate on multi-year planning cycles, and trade disruptions—especially those introduced abruptly—can upend planting decisions, investment timelines, and international sales strategies. **Without a resolution to current disputes or more consistent federal policy, capital expenditures will likely be deferred, innovation pipelines will slow, and strategic planning across the sector will remain tentative.**

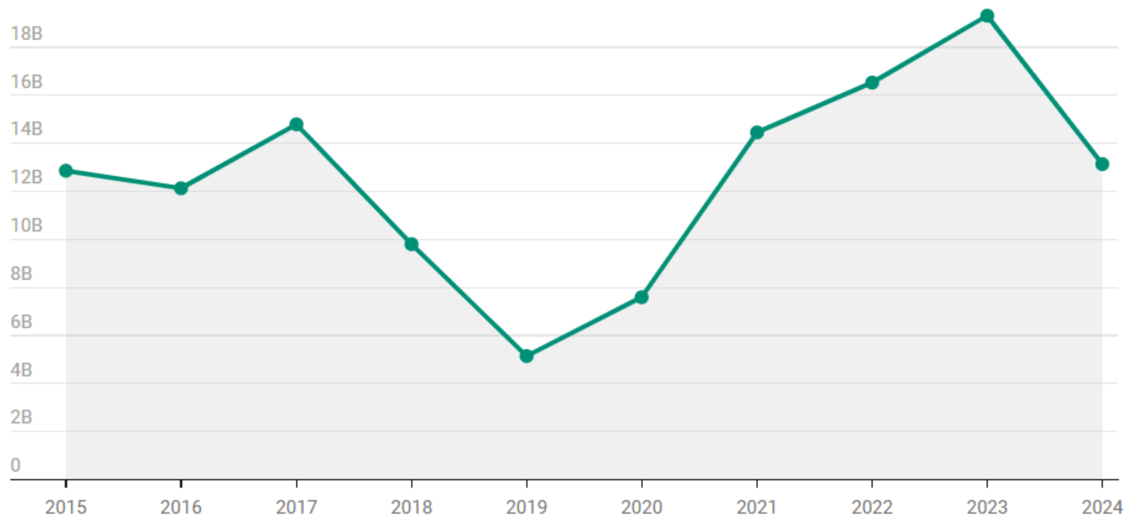
In sum, with over 20% of U.S. agricultural output exported—and even higher shares for commodities like soybeans, corn, and pork—the sector is especially exposed to global market risks. Retaliatory tariffs threaten both near-term revenue and long-term customer relationships. **We believe the combined effect of rising input costs and reduced demand will weigh on profitability through 2025 and we opine that without meaningful trade resolution or expanded fiscal support, volatility will persist and investor sentiment may remain cautious.**

Company Spotlight - Impact of Tariffs on Soybean Sector & Strategic Positioning of Archer-Daniels-Midland (ADM)

The latest escalation in U.S.-China trade tensions places the soybean sector at the heart of renewed economic uncertainty. **With effective Chinese tariffs on U.S. soybeans now at 114.73%—a sharp increase from the pre-retaliation level of 60%—American producers face a near-total erosion of competitiveness in what remains their largest export market.** Although soybean shipments to China had already dropped from their 2018 peak, Beijing still accounted for 48% of U.S. soybean sales in the 2024–25 marketing year. That number, however, masks a structural decline. U.S. exports to China reached just 22.1 million metric tons this year—a 12-year low, excluding the early trade war period—and less than 600,000 tons remain unshipped. **With Brazil now supplying nearly three times more soybeans to China than the U.S., and China increasingly favoring Brazilian beans for state reserves due to moisture and storage advantages, the U.S. has clearly lost ground in a market it spent decades cultivating.**

The consequences are not merely commercial—they strike at the operational core of soybean farms. Soybean prices are down almost 17% since a year ago, even as input costs remain elevated. **Notably, U.S. soybean farmers are navigating thinner margins with little financial cushion, as land, fertilizer, seed, and pesticide prices remain high.** This cost-price squeeze amplifies the tariff shock. Unlike the 2018 trade war, when government aid and relatively strong prices offered some relief, today's growers face renewed retaliation with diminished protections. China's move to impose a 50% surcharge on top of existing tariffs is a powerful signal that its pivot away from U.S. soy is not temporary. **Even if trade talks resume, we warn that any Phase Two agreement would likely offer only "false hope" given China's entrenched alignment with Brazil, years of soybean stockpiling, and softening domestic demand due to slower economic growth and reduced hog herd feed requirements.**

Chart 3: U.S. Oilseeds & Products Exported to China



Source: Farm Journal

Notably, the tariff escalation threatens more than soybean sales to China. Key USMCA partners, Canada and Mexico, are signaling retaliation against U.S. exports in response to new duties. **The American Soybean Association warns of lost market access and input risk—87% of U.S. potash, a vital fertilizer, comes from Canada.** We believe this uncertainty erodes confidence in planning and investment, especially for small and mid-sized farms. Though soybeans generated $24 billion in exports in 2023–24, the industry has yet to recover from the $19 billion hit during the 2018 trade war. As another tariff cycle unfolds, the pressure is mounting. Without coordinated action—through aid, trade talks, or market diversification—farmers face another round of volatility. **And with planting season already underway, they are running short on both margin and time.**

These developments have significant implications for companies embedded deeply in the agricultural supply chain, notably ADM. ADM's recent signing of a non-binding memorandum of understanding (MOU) with Mitsubishi Corporation (MC) signals a strategic pivot toward greater supply chain resilience and diversification. This alliance reflects a forward-looking strategy to mitigate exposure to geopolitical risks and ensure continuity in global agricultural flows. By aligning with MC—a conglomerate with a strong cross-industry presence across Asia, energy, and food—ADM aims to build a more integrated, robust, and adaptive agricultural value chain. **The companies plan to explore collaborations in areas such as biofuel supply chains and sustainable food systems, both of which are increasingly critical in light of rising environmental and energy security concerns.**

ADM's broad value chain participation—from origination and processing to nutrition and bio-based industrial solutions—gives it a natural hedge against volatility in raw commodity markets. Unlike independent soybean producers, ADM can leverage its downstream capabilities and global logistics infrastructure to reallocate volumes and maintain margins. Moreover, its alliance with Mitsubishi opens doors to fast-growing markets in Southeast Asia and Latin America, reducing ADM's reliance on any single region and providing insulation against bilateral trade conflicts like those unfolding between the U.S. and China. As U.S. soybean farmers struggle to maintain profitability and market access in a politicized trade environment, ADM is moving strategically to fortify its global footprint. Its approach is not only defensive—shielding against short-term shocks—but also offensive, capturing new opportunities arising from global shifts in food demand, energy transition, and supply chain realignment. **In doing so, we believe ADM is emerging not just as a commodity handler, but as a resilient enabler of the next-generation agriculture ecosystem.**

ADM reported a challenging 2024, with net earnings of $1.8 billion and adjusted EPS of $4.74, both down year-over-year. Cash flow from operations fell to $2.8 billion from $4.5 billion in 2023. **Notably, the company is targeting $500–750 million in cost savings over the next several years, including up to 700 job cuts, as it responds to weak market fundamentals, trade tensions, and uncertainty over U.S. biofuel policy.** CEO Juan Luciano noted that while tariffs may provide limited benefit, retaliatory actions from key buyers like China, Canada, and Mexico pose risks. ADM's global trading footprint offers some flexibility, but margins remain pressured. Despite the downturn, ADM is maintaining a disciplined capital strategy and announced a 2% increase in its quarterly dividend, signaling confidence in long-term stability. **For 2025, ADM expects another down year, guiding adjusted EPS between $4.00 and $4.75, its third consecutive annual earnings decline.**

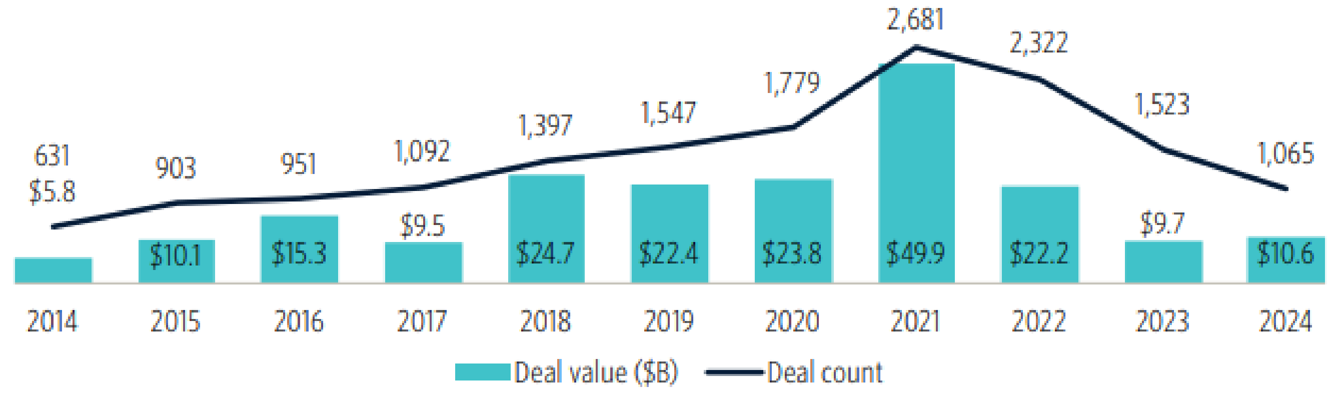
The company's stock is down 20.8% YTD, outperforming the S&P 500's 8.2% decline over the same period. Further, its dividend yield stands at a strong 4.2%, well above the S&P 500 average of ~1.3%. ADM currently trades at 13.4x its earnings, above its one-year average of 12.2x.

Chart 4: Stock Performance (YTD) – ADM Vs. S&P 500

Source: TradingView as of 25th April 2025

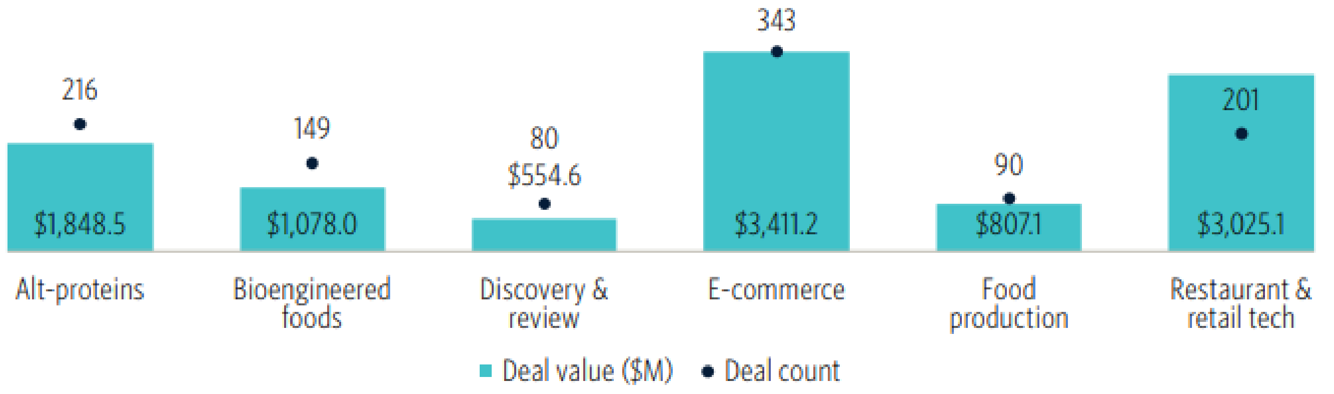
AGTECH CHART OF THE MONTH

Chart 5: Foodtech VC Deal Activity



Source: Pitchbook

Chart 6: Trailing Twelve Month Foodtech VC Deal Activity by Segment



Source: Pitchbook

AGTECH NEWS

INDUSTRY TRENDS

This Trade War Will Force Farms to Close' and More Reactions from Ag Industry on Latest Tariffs. President Trump announced a national economic emergency and signed an executive order imposing 10% tariffs on imported goods from all countries, effective April 5. Individualized reciprocal higher tariffs will be applied to countries with significant trade deficits, ranging from 20-26%. USMCA-compliant goods are exempt, but non-USMCA compliant goods from Mexico and Canada face 25% duties. The move has sparked concern among agricultural groups, including the American Farm Bureau Federation, National Corn Growers Association, and others, who warn that tariffs will drive up costs for farmers and threaten their competitiveness. Read more. *(Successful Farming)*

Trade War will 'Make Food Security an Urgent Priority'. A trade war triggered by President Trump's tariffs is causing uncertainty in the agrifoodtech industry, forcing companies to reassess their business models. Food security is becoming an urgent priority as markets roil, and some companies are better-placed than others to weather the storm. US-based food startups may face challenges, but could also find opportunities, while domestic biomanufacturing is seen as essential by Liberation Labs CEO Mark Warner. Tariffs will likely hit US-based emerging CPG brands hard, with some predicting losses in market share and increased costs for farmers and ranchers. Read more. *(AgFunder News)*

Bushel's 2025 State of the Farm Report Highlights How Technology Supports Trusted Relationships. The Bushel's 2025 State of the Farm Report highlights how technology supports trusted relationships among farmers. The report found that digital tools are gaining ground, with 76% of farmers using farm management software and 35% willing to make grain offers through a mobile app. Farmers under 50 prefer digital payments, while profitability remains a top concern, with many using software for cost tracking and decision-making. Read more. *(Global Ag Tech Initiative)*

Chart 7: Top Concerns Amongst Farmers - State of the Farm Report

	Unconcerned	Somewhat concerned	Very concerned
Price of commodities	3%	17%	80%
Price of inputs	3%	20%	77%
Profitability	3%	22%	76%
Price of equipment	4%	21%	75%
Inflation	4%	26%	69%
Government policies and regulations	4%	29%	67%
Land values	7%	30%	63%
Interest rates	10%	31%	59%
Import and export competition	7%	36%	57%
Weather	13%	38%	49%
Mandated sustainability programs	12%	44%	44%
Labor	23%	38%	39%
Grain industry consolidation	14%	47%	39%
Public and media perceptions of agriculture	19%	43%	38%
Changing consumer demands	18%	54%	27%

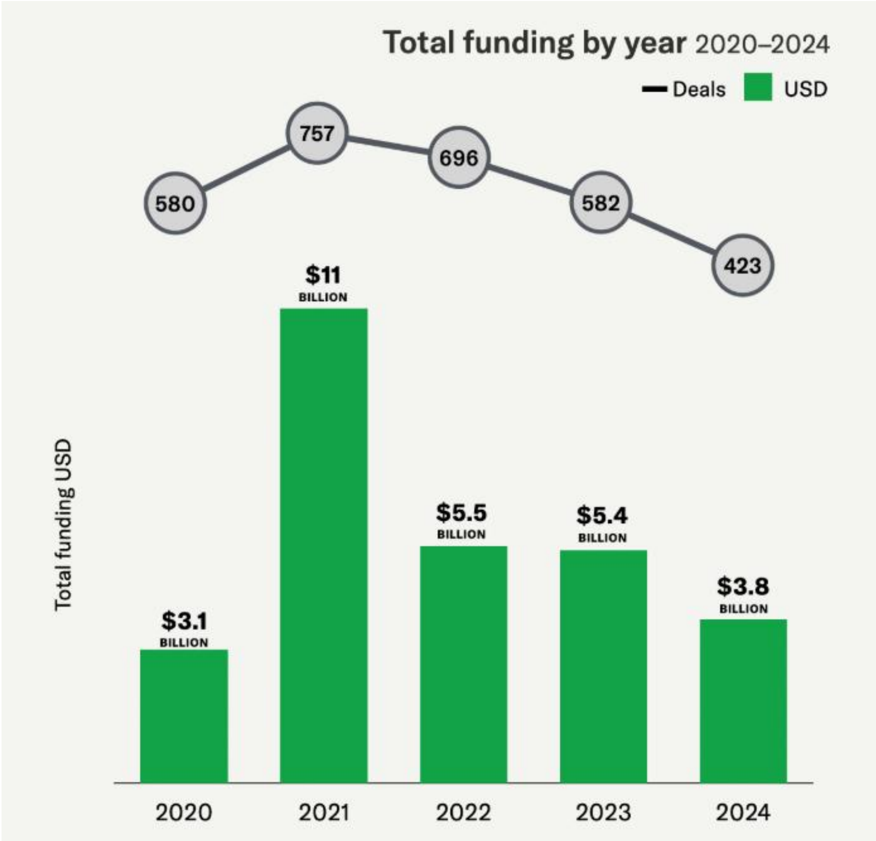
Source: Bushel Inc

Foodtech VC Ecosystem Overview. Foodtech has emerged as a dynamic sector focusing on innovation across the food value chain, from production to consumption. It faces challenges like food security, climate change, and evolving consumer preferences. The industry is driven by emerging technologies such as alternative proteins, AI-driven supply chain optimization, and smart packaging. Key trends include sustainable protein innovation, AI and automation in food safety, sustainability, and circular economy approaches, as well as smart supply chains and retail experiences. Read more. *(Pitchbook)*

Harvesting the Future: How Fruit Thinning Robots Are Cultivating a USD 1.76 Trillion Market by 2032. The fruit thinning robot market is projected to reach a staggering USD 1.76 trillion by 2032, driven by labor shortages in agriculture, rising demand for precision farming, technological advancements, and sustainability concerns. These robots use advanced sensors, AI-driven algorithms, and robotic arms to selectively remove immature or excess fruits, improving produce quality and reducing waste. Key players are investing in innovative solutions, with many machines capable of adapting to multiple tasks and offering remote monitoring capabilities. Read more. *(Agritech Tomorrow)*

Dry Powder Ready for "Resilient" European Agrifoodtech as Funding Returns to 2020 Levels. European agrifoodtech funding has rebounded to 2020 levels, with $3.8 billion invested in 423 deals last year, a 29% and 27% decline from 2023, respectively. Despite this, investors are focusing on resiliency, driven by concerns over trade wars, climate change, and supply chain disruptions. Top categories include critical foodtech, precision agriculture, and side streams, with eGrocery startups still raising significant funds despite a decline in deal count. Germany was the fifth-highest-funded country, with $561 million invested, but faces challenges due to fragmented startup ecosystems and strict regulatory policies. Read more. *(AgFunder News)*

Chart 8: Europe Agrifoodtech Investment Over Time (2020-2024)



Source: AgFunder News

INNOVATIONS

Orbiba Robotics Develops Affordable Ecominos Field Robot for Organic and Regenerative Farmers. Orhiba Robotics is developing the EcominoS field robot platform for small to medium-sized organic and regenerative farmers, priced at €18,000. The versatile robot measures 106cm x 65cm x 95cm, with a battery life of 6-8 hours, and can perform tasks such as cultivating, seeding, plant monitoring, and weeding using Swiss Cern's laser beam technology. Currently in beta programme, the company collaborates with farmers to refine its capabilities, having sold 12 units and receiving 37 preorders from countries including Belgium and Turkey. Read more. *(Future Farming)*

Chart 9: The EcominoS Field Robot Performs Cultivating, Seeding, Plant Monitoring, Transporting Loads and Clearing Field Paths

Source: Future Farming

Carbon Robotics Introduces the First and Only Tractor Autonomy Solution with Real-Time Remote Supervision and Control. Carbon Robotics has launched Carbon AutoTractor, a tractor autonomy solution that enables remote supervision and control. Developed with farmer feedback, it addresses common barriers to adoption, such as frequent stoppages and unreliable solutions. The system combines the Carbon Autonomy Kit and Remote Operations Control Center, allowing trained operators to intervene in real-time. It's compatible with John Deere tractors and integrates seamlessly with Carbon Robotics' LaserWeeder, boosting productivity and efficiency for farmers. Read more. *(Businesswire)*

Phytech Introduces AI-Powered Irrigation Advisor. Phytech has launched Phytech AI Advisor, an AI-powered irrigation advisor trained on real in-field data from its IoT network. The tool provides highly accurate, farm-specific irrigation recommendations to optimize water usage and enhance sustainability. By integrating real-time data, it eliminates the gap between monitoring and execution, continuously adapting to field conditions. Phytech AI Advisor offers precise recommendations for improved water efficiency, fertilizer usage, energy consumption, and yield improvement, empowering farmers with a "super-intelligence" that grows with their trees. Read more. *(Precision Farming Dealer)*

Terraform Tillage Receives Patent for SmartProbe System Soil Compaction Mapping Technology. Terraform Tillage has received a U.S. patent for its SmartProbe System, which measures and maps soil compaction to optimize sub-surface tillage. The system uses a smartphone-mounted penetrometer to record readings and create real-time maps, allowing farmers to focus on areas that need it most, reducing costs by up to 90% and improving yields. A free trial of the SmartProbe app is available through 2025, and the service can also be contracted in Iowa for $5 per acre. Read more. *(Agritech Tomorrow)*

Ecorobotix and RDO to Introduce AI Sprayer Technology in Australia. Ecorobotix, a Swiss AI-driven agricultural tech company, is partnering with RDO Equipment Australia to introduce the ARA sprayer in Australia. This advanced AI-powered solution optimizes plant protection product application with ultra-precision, reducing inputs use by up to 95% and minimizing crop phytotoxicity. The ARA sprayer also helps reduce manual weeding crews, offering significant economic benefits for growers of over 20 vegetable crops, including carrots, lettuce, and onions. Read more. *(Agritech Tomorrow)*

Aitech Unveils World's First AI-Enabled Picosatellite Constellation Platform Transforming Space-Based Intelligence for Military, Defense, Public Safety, Agriculture and Infinite Other New Market. Aitech has introduced IQSat, a picosatellite constellation platform enabled by Artificial Intelligence (AI) and Machine Learning (ML). The AI-powered platform offers actionable pattern-of-life analysis, rapid detection, and tracking for various applications, including public safety, agriculture, military, defense, climate, biology, and more. Leveraging Intuidex's Watchman for Space product, IQSat provides flexible sensor options, rapid development, and deployment, enabling new uses across multiple markets with high accuracy and low cost. Read more. *(Company Press Release)*

ThingsLog Unveils IoT-Based Smart Agriculture Solutions for Distributed Field Management. ThingsLog has launched new IoT-based smart agriculture solutions utilizing Agri Data Loggers, targeting large, distributed farming, especially orchards, vineyards, and greenhouses. These data loggers monitor critical parameters – soil moisture, temperature, wind, and rainfall – offering remote field management and precise irrigation control. The system's low-powered devices operate effectively with minimal infrastructure, optimizing water usage and reducing waste. ThingsLogo is actively seeking agritech partners for proof-of-concept trials, aiming to simplify farming, enhance crop health, and boost overall productivity through data-driven insights and centralized control. Read more. *(iGrow News)*

Chart 10: ThingsLog's IoT-Based Smart Agriculture Solution

Source: iGrow News

Trimble Launches IonoGuard to Protect RTK During Solar Storms. Trimble's IonoGuard, accessible via the latest Precision-IQ firmware, mitigates disruptions to RTK GNSS signals caused by solar storm interference. Developed for PTx Trimble NAV-900 controllers and ProPoint base stations, this technology addresses ionospheric distortions, particularly prominent in Solar Cycle 25. Field testing, including a May 2024 solar storm, demonstrated IonoGuard's ability to maintain signal access and reduce downtime, confirmed by user feedback from Vantage Australia. The system enhances RTK performance during typical operations and heightened solar activity. Read more. *(Future Farming)*

Cultivatix Unveils an Innovative Fodder System with Algae Bioreactor. In a landmark move for sustainable agriculture, Cultivatix has commissioned its first state-of-the-art Fodder Capsule System in Al Khor, Qatar, featuring an innovative algae bioreactor. This project, designed in the U.S. and manufactured in Spain, utilizes multi-layer insulation and German phytosensor technology to cultivate high-quality fodder like alfalfa, barley, and wheat with up to 95% less water than traditional methods. The system's 18,000-liter bioreactor captures CO_2 and produces nutrient-rich biofertilizer, enabling 120 harvests annually. Integrated AI delivers localized growth recipes in multiple languages, supporting Qatar's food security goals while minimizing environmental impact and promoting carbon-neutral food production. Read more. *(Agritech Tomorrow)*

CropX Launches Strato 1: A Cutting-Edge In-Field Weather Station for Smarter Farming. CropX Technologies launched Strato 1, a new, affordable in-field weather Station, designed to elevate farm management by providing real-time, hyperlocal weather data. Developed based on customer demand, this hardware seamlessly integrates with CropX's farm management system, offering growers accurate insights for optimizing planting, irrigation, and nutrient application. The Strato 1's easy, DIY installation delivers a holistic view of field conditions, combining weather data with CropX's soil and agronomics to improve farm efficiency and profitability, according to CropX's CEO, Tomer Tzach. Read more. *(Company Press Release)*

COMPANY NEWS

Syngenta and PepsiCo Reward Farmers for Regenerative Farming Practices. Through Syngenta's Sustainable Sourcing Program, PepsiCo is collaborating with farmers using regenerative agricultural practices in Argentina's Buenos Aires, La Pampa, San Luís, and Santa Fe provinces. Farmers applying practices like crop rotation and efficient irrigation receive a 1–2 % price premium on their sunflower crops, alongside verification through Syngenta's Cropwise platform. In year one, 4,000 tonnes of sunflower oil, produced through these verified methods, were supplied to PepsiCo, marking the Southern Cone as the first LATAM region with 100% regenerative sunflower agriculture, with a projected 25% expansion of implementing hectares. Read more. *(AgriTech Tomorrow)*

Crop.zone and Big Iron Bring Herbicide-Free Weed Control to U.S. Crop.zone, a German ag-tech company, is expanding into the US market through a partnership with Big Iron Equipment. Their Nucrop system uses high-voltage electricity to disrupt plant cells and kill weeds without synthetic chemicals, leaving no residue. The technology has proven effective in potato desiccation, cover crop termination, and non-selective weed control, and aims to replace banned herbicides like Diquat. It works by applying a conductive liquid before an electrical applicator passes over the crop, effectively desicating plants at up to 8 km/h operating speed. Read more. *(Future Farming)*

Twist Bioscience and Curio Genomics Collaborate to Accelerate and Streamline NGS Adoption in Agrigenomics. Twist Bioscience and Curio Genomics have collaborated to accelerate the adoption of Next-Generation Sequencing (NGS) workflows in agrigenomics. The partnership offers Twist's FlexPrep UHT Library Preparation Kit with Curio's bioinformatics software, creating a sequencer-agnostic end-to-end solution for library prep through data analysis. This streamlined workflow aims to simplify NGS adoption by providing favorable economics and scalability, enabling researchers to analyze high-complexity libraries and make faster decisions. Read more. *(Company Press Release)*

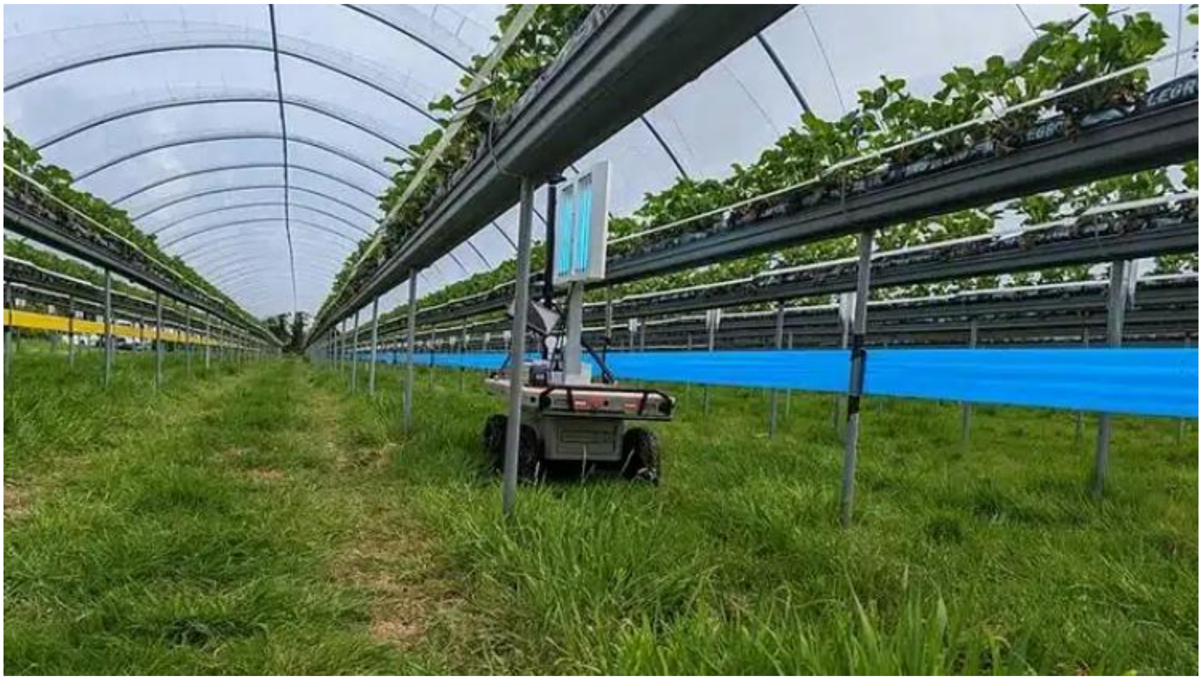
BioOx Grow is Certified to be used in Organic Production and uses Proprietary Technology to Stimulate Agricultural Plant Growth While Detoxifying Your Soil. BioOx, a company founded by Dr. Sam Sofer, has received certified listing from OMRI for its organic production supplement, BioOx Grow. This product stimulates plant growth and detoxifies soil using proprietary ROx technology, increasing crop yield by up to 40% and destroying pollutants like pesticides and herbicides. BioOx Grow requires no significant changes or new machinery, providing a seamless solution for farmers and gardeners seeking natural growth enhancement. Read more. *(Yahoo Finance)*

GrowGeneration Launches B2B Pro Portal, Expanding Digital Capabilities for Commercial Cultivators and Retailers. GrowGeneration Corp., the nation's largest specialty hydroponic and organic gardening retailer, launched its B2B Pro Portal, a digital platform for commercial cultivators and retailers to streamline purchasing. The e-commerce platform features real-time inventory, automated quoting, and direct ordering, improving efficiency and reducing operational burdens. It also offers customized account management, seamless logistics, and financing solutions. The portal has already been used by commercial customers who have provided feedback to refine the online platform. Read more. *(AgriTech Tomorrow)*

Loveland Products and Ascribe Bioscience Expand Collaboration to Develop New Phytalix-Based Solutions for U.S. Row Crops. Loveland Products and Ascribe Bioscience have expanded their collaboration to develop new Phytalix-based solutions for US row crops. Building on successful 2023 results, the partnership aims to strengthen Loveland's biological platform with additional proprietary premixes. Phytalix, a biofungicide derived from soil microbiome small molecules, offers broad-spectrum disease control and improved plant health. The new products will expand Loveland's offerings for US row crop growers, with product submissions to the EPA anticipated by 2025. Read more. *(AgriTech Tomorrow)*

Antobot Expands Global Deployment of uRCU for Agri-Robot Integration. Antobot has expanded its global deployment of uRCU, a universal Robot Control Unit designed for agricultural robotics. The AI-powered unit offers compatibility, precision control, and cost-efficiency for various farming systems, integrating seamlessly with Antobot's robotic ecosystem. Deployed in commercial farms worldwide, uRCU addresses labour challenges and promotes sustainable practices through modular robots tailored to specific tasks such as scouting, spraying, and logistics. Read more. *(iGrow News)*

Chart 11: Antobot Announces Global Expansion of its Universal AI-Powered uRCU Robotic Control Unit



Source: iGrow News

New Partnership Creates Strawberry Improvement Programme. Heritable Agriculture, Paul J Mastronardi, and Consorzio Italiano Vivaisti (CIV) have partnered to develop an advanced strawberry improvement program. The partnership combines CIV's germplasm knowledge, Heritable's AI-driven breeding models, and Paul J Mastronardi's production assets and leadership in indoor strawberry production. This collaboration aims to create novel varieties with improved taste, disease resistance, and productivity for greenhouse and tabletop environments, reducing breeding timelines and optimising grower and consumer traits simultaneously. Read more. *(Fruitnet)*

Valmont Provides Update on Tariff-Related Impacts. Valmont Industries anticipates mitigating ongoing U.S. tariffs on imports from Mexico, Canada, and China through strategic pricing, cost controls, and operational adjustments across its 24 U.S.-based facilities. The company projects cost-neutrality in the second half of fiscal 2025, regardless of whether USMCA exclusions are granted. These plans don't account for retaliatory tariffs or future U.S. tariffs, and Valmont assumes no obligation to revise this update. Read more. *(Businesswire)*

Benson Hill Files Voluntary Chapter 11 Petitions. Benson Hill, Inc. has voluntarily filed for bankruptcy protection under Chapter 11 in Delaware, citing industry challenges and financial difficulties. Despite efforts including asset divestments and a transition to a licensing model, the company seeks to streamline its operations and pursue a sale of its business, with an estimated $11 million in debtor-in-possession financing secured. The company intends to support its stakeholders while navigating the process, with Faegre Drinker and Piper Sandler serving as legal and banking counsel, respectively. Read more. *(Businesswire)*

FarmWise AI-powered Weeding Tech 'Commercially Ready' Despite Company Restructuring and Wind Down. Despite restructuring and a planned wind-down, FarmWise remains confident in the commercial viability of its AI-powered weeding robots, particularly the Vulcan system. CEO Tjarko Leifer attributed the decision to external economic headwinds, including decreased venture funding and challenges facing farmers. The company, backed by $65 million and investors like Fall Line Capital, focused on ensuring continuity for its existing customer base. Farmwise's technology addresses persistent agricultural issues like labor shortages and herbicide resistance, viewing robotics and intelligent machinery as crucial for sustainable farm operations, despite acknowledging the current difficulties impacting startups in the agricultural technology sector. Read more. *(AgFunder News)*

Correcting and Replacing Force of Nature Meats Launches Revolutionary Chicken Program, Setting a New Standard for Ethical Poultry Sourcing. Force Of Nature Meats, based in Texas, has launched a revolutionary chicken program that sets a new standard for ethical poultry sourcing. The company's approach centers around pasture-raised, slow-grow heritage breeds, differing starkly from the industry-standard Cornish Cross. These birds, raised for 8-10 weeks, benefit from natural foraging behavior, a 100% organic, GMO-free diet, and air/ice chilling, resulting in superior flavor and nutrition. This initiative prioritizes animal welfare and environmental health, reflecting a commitment to regenerative agriculture and offering consumers a better alternative to conventional chicken. Read more. *(Businesswire)*

LettUs Grow and KG Systems Forge Global Partnership to Pioneer Advanced Aeroponics. LettUs Grow Ltd., a UK-based innovator of Advanced Aeroponics technology, and KG Systems, a global horticultural solutions provider, announced a strategic partnership to revolutionize indoor agriculture. Combining LettUs Grow's ultrasonic aeroponic system with KG System's expertise, this collaboration will introduce the Aeroponic Rolling Brench into KG Systems' expansive operations globally. The partnership aims to increase productivity by over 20% across leafy greens and herbs, focusing on scalable, water-efficient solutions for greenhouses and vertical farms. KG Systems plans to deploy multiple hectares of these systems next year, solidifying both companies' commitment to sustainable growth and enhancing global food security. Read more. *(AgriTech Tomorrow)*

FUNDING

Brevel Expands Seed Round to US$25 Million Through Warrant Exercise. Israeli climate-tech firm, Brevel, has closed a $25 Million seed extension – bringing its total investment to date to $25 million – by exercising warrants issued in 2023. The company, focused on affordable microalgae protein, has achieved significant milestones including launching its first-ever commercial factory and scaling up production to 5,000 liters. Breve's innovative technology fuses light with sugar- based fermentation, enabling high-yielding, cost-effective protein production without genetic modification. Leveraging this, Brevel produces a versatile, neutral-flavored protein powder ideal for plant- based alternatives. With a diverse portfolio encompassing protein, lipids, and fibers, the company aims for cost parity, and is poised for expanded production and offtake agreements, driven by its unique approach to maximizing the value of the entire microalgae biomass. Read more. *(Agritech Tomorrow)*

GreenLight Bio closes Series C with $25M from Just Climate. GreenLight Biosciences, a Boston-based agtech company, has closed a Series C funding round with $25 million from Just Climate. The investment supports commercial momentum following the launch of Calantha, an RNA-based crop protection spray for potato growers. The funds will also drive product pipeline advancements, including Norroa to protect bee colonies and Fortivance to enhance agricultural treatments' efficiency. GreenLight Bio aims to expand internationally, particularly in Brazil and Latin America, while advancing sustainable agriculture practices through collaborative research. Read more. *(North Carolina Biotechnology Center)*

Vestaron Raises More than $20M in Oversubscribed Funding Round to Accelerate Global Commercialization of Novel Bioinsecticides. Vestaron, a global leader in peptide-based crop protection solutions, raised over $20 million in an oversubscribed funding round. The investment will accelerate commercialization of its pioneering technology platform and advance sustainable bioinsecticide solutions. Vestaron will use the capital to expand presence in key US and European markets and develop additional products. This validates the company's position as a leader in addressing pest resistance and sustainability challenges, with significant market opportunities for growth. Read more. *(Company Press Release)*

German Startup Bags $15.5M to Bring Tech-Led Reusable Food Packaging to the U.S. German eco-packaging startup Vytal Global has raised €14.2M to fuel global scale—particularly targeting expansion into the United States. The Cologne-area firm, backed by Inven Capital and NRW.Venture, aims to establish tech-enabled reusable food packaging as a standard across gastronomy, events, and entertainment, building on its existing European network of 7,000 partners in 24 countries. Vytral's model combines reusable products with smart tech, integrating into POS systems and offering a pay-per-use pricing model. Addressing a significant global challenge—with plastic production accounting for 3.4% of global greenhouse gas emissions—Vytral's solution tackles the 99% plastic recycling rate issue by utilizing a circular system. Investors highlight the company's innovative use of data and technology, anticipating a $10B market opportunity and aligning with growing consumer preference for sustainable packaging solutions. Read more. *(Green Queen)*

Causal Labs Raises $6M Seed Funding to Build AI for Weather Prediction and Control. Causal Labs, an AI company, has raised $6 million in seed funding to develop its physics-based model for weather prediction and control. The model uses AI to simulate atmospheric behavior, providing accurate forecast predictions in minutes. Causal Labs plans to expand its team, further develop the model with safety and transparency mechanisms, and initiate pilot programs across critical industries. The goal is to create a general, large-scale physics foundation model that can be applied to various domains, including aviation, agriculture, and climate change, ultimately tackling complex challenges with unprecedented accuracy. Read more. *(Business Wire)*

GigaCrop Raises $4.5M to Boost Photosynthesis Efficiency. GigaCrop secured $4.5 million in early investment, spearheaded by Playground Global, targeting enhanced crop production via AI-driven enzyme engineering. The company's approach addresses the bottleneck of Rubisco, a slow-performing enzyme limiting photosynthesis. This technology promises to double plant efficiency, significantly increasing yields for food, fiber, and biofuel generation. Born from the Berkeley Lab Cyclotron Road program with DOE and Foundation support, GigaCrop's innovation tackles critical global challenges of food security and sustainable resource use. Read more. *(Slice of Agriculture)*

Indonesian Agritech Firm Elevarm Nets $4.25m Pre-series A. Indonesian agritech firm Elevarm secured $4.25 Million in a pre-series A round, led by Intudo and including Insinia Ventures Partners and 500 Global. The company will use this capital to develop new agricultural inputs, expand seedling choices, and implement AI-driven digital tools for enhanced farming. Established in 2022, Elevarm supports over 15,000 farmers across West Java, Central Java, and Yogyakarta, offering solutions like seeds and bio-fertilizers. Read more. *(TECHINASIA)*

Agros Secures $4.25M Series A Funding to Scale Solar-Powered Irrigation in Southeast Asia. Agros secured a $4.25M Series A financing, spearheaded by Gaia Impact, Schneider Electric Energy Access Asia, and Wavemaker Impact, alongside the Global Innovation Fund, to bolster its expansion of solar-powered irrigation across Southeast Asia. The Singapore- based firm intends to partner with 30,000 farmers by 2027, up from 6,000 currently, aiming to increase collective farmer incomes by $40 million. Funding will fuel nationwide expansion in Indonesia, product innovation, and the development of Agro's digital infrastructure, while also preventing 1 million tonnes of CO_2 emissions through sustainable irrigation solutions. Read more. *(iGrow News)*

AdvancedAg Secures $2M Seed Round to Accelerate Biological Innovation. AdvancedAg, an indigenous ag-biotech firm based in Alberta, has secured $2 million in seed funding from Raven Indigenous Capital Partners. The investment will support research and development, intellectual property growth, and market expansion across North America. AdvancedAg focuses on biological solutions to improve soil health, reduce chemical inputs, and boost farm profitability. The company plans to scale its offerings, expand its reach, and continue delivering affordable, high-performance biologicals that support regenerative agriculture practices. Read more. *(iGrow News)*

Elaniti Secures Funding to Accelerate Soil Microbiome Intelligence. Elaniniti, a UK agtech start-up, has raised €1.5M in Series A funding from biotopeby VIB, Planetary Impact Ventures, and PINC, bolstering its development of a soil microbiome AI tool. This technology utilizes DNA sequencing to analyze soil microbial data, correlating it with yield and disease patterns to offer actionable insights for enhanced crop productivity and resilient soils. The investment will expand Elaniniti's team and research, alongside strengthening partnerships with agribusiness leaders, as soil health becomes a key focus for sustainable agriculture, highlighted in the current New AG International issue. Read more. *(New AG International)*

The Hashgraph Group Invests in AgNext Technologies, Pioneering AI-Driven Agricultural Solutions on Hedera. The Hashgraph Group (THG) has invested in AgNext Technologies, a leading agritech company that leverages AI-driven quality assessment and blockchain-enabled traceability to enhance food safety and efficiency. This investment aims to integrate Hedera's distributed ledger technology into AgNext's platforms, ensuring 100% traceability and transparency. The partnership will drive innovation in the global agriculture and food sectors, with AgNext poised to enhance its quality assurance frameworks and create robust transaction assurance systems. Read more. *(Agritech Tomorrow)*

Sylvan Secures Investment from Novo Holdings. Sylvan, the world's largest mushroom spawn and fungal biotech company, has secured an investment from Novo Holdings. The funding will enable Sylvan to expand production capacity, upgrade research and development infrastructure, and grow in Asian markets. As a result of this transaction, KKR remains the majority shareholder in Sylvan. This investment aligns with Novo Holdings' strategic objectives of supporting sustainable innovations that address global challenges, particularly in the food, agriculture, health, and materials sectors. Read more. *(iGrow News)*

M&A

CNH Industrial Acquires Advanced Farm's Robotic Apple Picking Technology. CNH Industrial has acquired Advanced Farm's robotic apple picking technology, including its assets and intellectual property. The move aims to address labor shortages and enhance efficiency in the agricultural industry. A successful 2024 pilot season validated the commercial potential of the platform, which performed as expected. Key Advanced Farm team members will join CNH's innovation teams, supporting development of automation solutions for fruit harvesting. This acquisition aligns with CNH's strategy to scale customer-inspired innovation through automated and sustainable agricultural technologies. Read more. *(iGrow News)*

Cal-Maine Foods to Acquire Echo Lake Foods for $258 million. Cal-Maine Foods, the nation's largest producer and distributor of fresh shell eggs, reported robust financial results for Q3 2025, with net sales reaching $1.4 billion and net income of $508.5 million. The company also announced its acquisition of Echo Lake Foods for $258 million to enter the value-added food segment and diversify its product portfolio. Cal-Maine Foods has increased production capacity, completed expansion projects, and declared a cash dividend and share repurchase program. Read more. *(Investing.com)*

Fresh Del Monte buys Majority Stake in Avocado Oil Business Avolio. Fresh Del Monte Produce has acquired a majority stake in Avolio, an Uganda-based avocado oil supplier. The deal aims to capitalize on the growing $1.2bn avocado oil market, with a CAGR of 8-10%. Fresh Del Monte will link its supply chain with Avolio's extraction technology to process 140 tonnes of avocados daily and become a market leader in sustainable avocado oil solutions. This acquisition aligns with the company's strategy to extract greater value from agricultural by-products and reduce food waste. Read more. *(Fruitnet)*

Hexagon Completes Acquisition of Septentrio Expanding the Reach of Mission Critical Navigation and Autonomy Applications. Hexagon has finalized the acquisition of Septentrio, NV, a leader in GPS/GNSS technology focused on autonomy and mission-critical applications. This strategic move strengthens Hexagons position as the industry leader in resilient positioning, offering customers enhanced accessibility to high-accuracy solutions with optimized SWaP. The combined portfolios will accelerate the adoption of autonomous systems across diverse sectors, including robotics, UAVs, and emerging high-growth markets, while Septentrio will maintain its focus on supplying state-of-the-art technology to its existing OEM customer base. Read more. *(Company Press Release)*

Oishii Acquires Tortuga Agtech's IP, Assets, and Engineering Team to 'Supercharge' its Vertical Farms. Vertical farming firm Oishii has acquired Tortuga AgTexnologies, a robotics firm known for its strawberry harvesting robots and data-centric plant technologies. The deal, valued at $50 million over eight years, secures Oishii's intellectual property, assets, and Tortuga's engineering team. Oishii, a leader in premium strawberries and tomatoes, sought to "super charge" its operations while prioritizing agricultural innovation. Integrating Tortuga's AI models and custom hardware, Oishii's robotic system aims to surpass human farmers in strawberry picking, reducing harvest costs by 50 percent. With a current fleet of 150 robots, the combined expertise will accelerate automation and expand Oishii's reach across the US. Read more. *(AgFunder News)*

Taylor Farms Announces Acquisition of FarmWise's Business. Taylor Farms, North America's leading producer of ready-to-eat salads, has acquired FarmWise's business, an ag-tech robotics company specializing in precision weeding and thinning solutions. The acquisition reinforces Taylor Farms' commitment to advancing agricultural technology and sustainable farming practices. FarmWise's Vulcan technology enables farmers to reduce manual labor, optimize productivity, and adopt more sustainable methods. Taylor Farms will assist with a seamless transition for existing customers, furthering the innovative momentum behind the Vulcan technology. Read more. *(Company Press Release)*

Arcadea Group Announces Strategic Acquisition of Phoenix, by Agdata Holdings. Arcadea Group has acquired Agdata Holdings, including its flagship farm management software Phoenix. The integrated suite covers Australian cropping and livestock production, efficiently managing operations from data collection to financials. Arcadea Group sees significant potential in Agdata's innovative solutions and products vital to producers' success. This acquisition aligns with their commitment to investing in AgTech companies with long-term potential, supporting accelerated product development and market penetration for Phoenix. Read more. *(Businesswire)*

Limoneira and Agromin Launch Joint Venture for Waste Recycling. Limoneira Company has announced a joint venture with Agromin Corporation to expand an existing composting facility at Limoneira Ranch from 15 acres to 70 acres, allowing for the processing of green and food waste. The enhanced facility is expected to contribute $5 million in EBITDA in its first year, growing to $9 million annually over a decade. Construction will begin in fiscal 2025 and finish by 2026, with both companies sharing profits equally. Read more. *(Investing.com)*

Mann Lake Ltd. Acquired by Coalition of Families. Mann Lake Bee and Ag Supply, the world's largest beekeeping supply company, was acquired by a group of families on March 21, 2025. The families, including sustainable farmers, an olive farmer, and beekeepers, share Mann Lake's vision to support North American beekeepers and backyard chicken farmers. This transition enables Mann Lake to focus on long-term growth, become debt-free, and access significant capital for product development and customer support. Read more. *(Businesswire)*

HerdStar LLC Acquired by BinMaster, Strengthening Precision Ag Solutions. HerdStar's acquisition by BinMaster significantly bolsters precision ag solutions for agricultural producers. This merger combines Herdstar's BinTrac and Microzone feed monitoring and climate control technologies with BinMaster's expertise in sensor technology and inventory management. Both brands will continue production at HerdStar's Mankato, MN facility, fostering innovation and expanded capabilities while prioritizing customer service and operational efficiency within the livestock industry. Read more. *(swineweb)*

EARNINGS

Syngenta Group Reports $28.8 Billion Sales and $3.9 Billion EBITDA in 2024. Syngenta Group reported $28.8 billion in sales for FY 2024, a 10% decline from the previous year due to channel destocking, adverse weather conditions, and weaker emerging market currencies. Despite this, strong demand for new crop protection technologies and biological products, as well as a resilient seed market and robust performance in China, helped offset losses. EBITDA fell 15% to $3.9 billion, but improved 11% in Q4 to $1.1 billion, driven by productivity gains and restructuring initiatives. Read more. *(Company Press Release)*

CHS Reports Second Quarter Fiscal Year 2025 Results. CHS Inc., the nation's leading agribusiness cooperative, reported a net loss of $75.8 million and revenues of $7.8 billion for its second quarter of fiscal year 2025. Compared to net income of $170.3 million and revenues of $9.1 billion in the same period last year. The company cited softer commodity markets, policy uncertainty, and volatility as challenges. Energy segment earnings declined due to evolving market conditions, while Ag segment earnings were weaker due to lower grain and oilseed margins. Read more. *(Company Press Release)*

Cal-Maine Foods Reports Financial and Operational Results for Third Quarter Fiscal 2025. Cal-Maine Foods reported financial and operational results for Q3 fiscal 2025, with net sales of $1.4 billion and net income of $508.5 million, or $10.38 per diluted share. The company honored long-standing pricing frameworks with valued customers, despite strong consumer demand and record total dozens sold. Cal-Maine Foods also made significant progress in mitigating the tight egg supply situation through organic and inorganic expansion, breeder flocks growth, and expected completion of $60 million in expansion projects. Additionally, the company announced a definitive agreement to acquire Echo Lake Foods for approximately $258 million, expanding its product portfolio and customer mix. Read more. *(Company Press Release)*

Lindsay Corporation Reports Second Quarter Fiscal 2025 Results. Lindsay Corporation reported a 47% increase in net earnings and 49% rise in diluted EPS for its second quarter ended February 28, 2025. Irrigation revenue grew 11%, driven by international sales, while infrastructure revenues more than doubled due to a large Road Zipper System project. The company plans to mitigate potential tariff impacts through supplier negotiation and inventory management. A strong backlog of $127 million was reported, with increased demand expected in developing markets like the MENA region. Read more. *(Company Press Release)*

PURE Bioscience Reports Fiscal Second Quarter 2025 Financial Results. PURE Bioscience reported net product sales of $391,000 (2025 Q2) and $946,000 (six months ended January 31, 2025), with a sales decrease of $97,000 within the last six months due to reduced end-User network sales. Despite a net loss of $798,000 (Q2) and $1,487,000 (six-month period), the company experienced a decrease in operating expenses by $194,000 and $386,000, respectively. Key advancements included scaling up dairy membrane solutions through pilot testing at a California State University facility, demonstrating successful UF and RO membrane treatments that promise to revolutionize water conservation and operational efficiency in the dairy industry. Read more. *(Businesswire)*

GrowGeneration Reports Fourth Quarter and Full Year 2024 Financial Results. GrowGeneration Corp. reported strong Q4 and a solid full-year 2024, showcasing strategic restructuring and a focus on B2B business-to-business sales. Sales reached $188.9 Million, with proprietary brands increasing to 24.2% of Cultivation & Gardening net sales—a significant rise from 18.8% the previous year. The company achieved a $2 million profit forecast for 2025, alongside a projected revenue range of $170 Million to $180 Million and a gross margin of 29%-31%. Key achievements include a

$56.5 million cash position, no debt, and a 1.0% same-store sales increase. GrowGeneration consolidated 19 retail locations, streamlining operations and focusing on its growing B2B channel. The company anticipates continued growth driven by its expanding proprietary brands, particularly Drip Hydro and Char Coir, and expects to reach 35% proprietary brand sales by the end of 2025. Read more. *(Company Press Release)*

Arcadia Biosciences (RKDA) Announces Fourth-Quarter and Full-Year 2024 Financial Results and Business Highlights. Arcadia Biosciences concluded a highly successful 2024, marked by significant advancements across its business ventures. The company experienced a 439% surge in total revenue, reaching $1.216M for the year, fueled by nearly 100% revenue growth for its Zola coconut water brand and bolstered by new retail distribution partnerships. Arcadia also finalized a business combination with Roosevelt Resources, expected to result in a 90/10 equity split post-closure. Key strategic moves included selling its Resistant Starch Durum trait to Corteva for $4 million and the GoodWheat brand to Above Food Corp. also for $4 million. Thomas J. Schaefer was appointed as president and CEO, bringing over 20 years of experience. Operating expenses decreased significantly, leading to a substantial reduction in net losses, demonstrating improved financial management and setting the stage for continued growth in 2025. Read more. *(Company Press Release)*

Intrepid Announces Fourth Quarter and Full-Year 2024 Results. Intrepid Potash, Inc. reported financial outcomes for 2024, marking a decrease compared to 2023 in sales reaching $254.7m. Despite a GAAP net loss of $212.8 million and adjusted net loss of $3.7 million, the company showcased significant operational advancements. Key highlights include a 32% increase in potash production—up to 295 thousand tons—due to the successful commissioning of the HB pipeline and new primary pond, boosting brine injection rates to 2,000 GPM. The HB Solution Mine – AMAX Cavern test well drilling is slated for Q2 2025, aiming to measure brine chemistry. With adjusted EBITDA at $35.5 million, Intrepid anticipates continued improvements through operational efficiencies and cost controls, capitalizing on rising potash prices and a strong spring application season. Read more. *(Company Press Release)*

COMMODITIES DASHBOARD

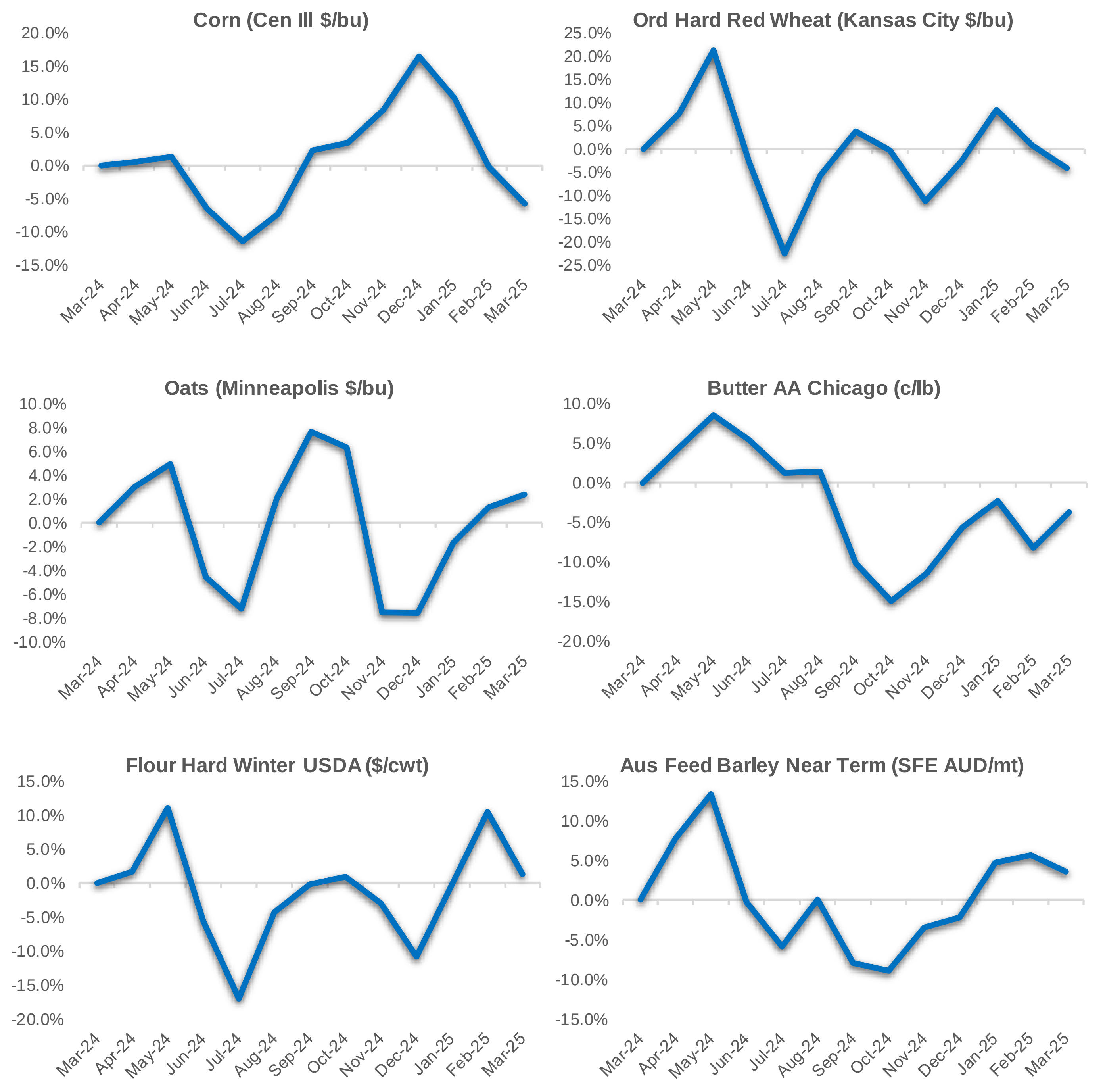
AGRICULTURAL COMMODITIES MARKETS

Chart 12: Agricultural Commodities Price Returns

Agricultural Commodities	Price as of 31 Mar 2025	1M	3M	6M	1Y	YTD
Grains						
Corn (Cen Ill $/bu)	4.44	▼ -1.61%	▼ -1.93%	▲ 12.54%	▲ 3.43%	▼ -5.78%
Corn (St. Louis Miss R $/bu)	4.69	▲ 2.46%	▼ -0.69%	▲ 13.96%	▲ 3.59%	▼ -3.25%
Ord Hard Red Wheat (Kansas City $/bu)	5.22	▼ -1.16%	▼ -0.43%	▼ -6.99%	▼ -7.24%	▼ -4.09%
Soft Red Wheat (St. Louis Miss R $/bu)	5.29	▼ -3.07%	▼ -5.96%	▲ 9.87%	▼ -5.58%	▼ -8.32%
Dns/Ns Wheat 14 (Minneapolis $/bu)	7.92	▲ 0.92%	▼ -0.47%	▼ -11.19%	▲ 0.57%	▼ -4.35%
Oats (Minneapolis $/bu)	4.01	▼ -2.19%	▼ -1.05%	▼ -7.23%	▼ -2.61%	▲ 2.23%
Butter AA Chicago (c/lb)	234.00	▼ -0.21%	▼ -8.24%	▼ -16.58%	▼ -17.68%	▼ -3.80%
Flour Hard Winter USDA ($/cwt)	15.65	▼ -0.63%	▲ 9.82%	▼ -2.80%	▼ -10.32%	▲ 1.29%
Aus Feed Barley Near Term (SFE AUD/mt)	303.50	▲ 2.36%	▲ 8.20%	▲ 4.66%	▲ 3.06%	▲ 3.58%
Softs						
Cocoa Ivory Coast New York ($/mt)	7970.00	▼ -10.35%	▼ -30.97%	▲ 3.02%	▼ -18.18%	▼ -27.49%
Coffee Brazilian New York (c/lb)	381.66	▲ 0.53%	▲ 18.59%	▲ 41.43%	▲ 99.45%	▲ 1.42%
Coffee Colombian New York (c/lb)	391.13	▼ -0.24%	▲ 15.64%	▲ 33.84%	▲ 79.81%	▲ 1.02%
Sugar #11 World Raw New York (c/lb)	18.85	▲ 1.89%	▼ -2.28%	▼ -16.33%	▼ -16.26%	▼ -2.84%
Oils and Oil Seeds						
Corn Oil Food Grade (Degummed) Central US FOB-R ($/ton)	52.00	▲ 0.00%	▲ 0.00%	▲ 0.00%	▲ 0.00%	▲ 0.00%
Soybean Oil Illinois FOB-T/R (c/lb)	44.33	▲ 4.23%	▲ 9.43%	▲ 0.98%	▼ -6.30%	▼ -0.34%
Livestock						
Broilers Composite Average 12-City (c/lb)	134.81	▲ 6.69%	▲ 0.60%	▲ 5.07%	▲ 2.78%	▲ 3.02%
Eggs Large White USDA (c/Dozen)	374.50	▼ -55.50%	▼ -34.81%	▲ 83.13%	▲ 56.37%	▼ -46.69%
Hogs Lean/Average Iowa/S Minn Lean Hog Index (c/lb)	88.78	▼ -1.29%	▲ 5.70%	▲ 5.52%	▲ 4.94%	▲ 5.98%
Pork Bellies Frozen 12-14 lbs. Chicago/Midwest (c/lb)	174.35	▼ -18.49%	▲ 9.60%	▲ 16.47%	▲ 12.50%	▼ -0.29%
Feeder Cattle Near Term (CME $/lbs)	2.86	▲ 4.17%	▲ 8.91%	▲ 16.35%	▲ 15.62%	▲ 3.89%
Dairy						
Cheese Barrels CME (c/lb)	1625.00	▼ -8.71%	▼ -10.96%	▼ -24.33%	▲ 13.84%	▼ -10.22%
Cheese Blocks CME (c/lb)	1635.00	▼ -7.89%	▼ -14.40%	▼ -22.88%	▲ 15.34%	▼ -12.92%
Grade A Nonfat Dry Milk Chicago USDA ($/lb)	1.16	▼ -3.12%	▼ -15.45%	▼ -14.52%	▲ 3.79%	▼ -13.57%

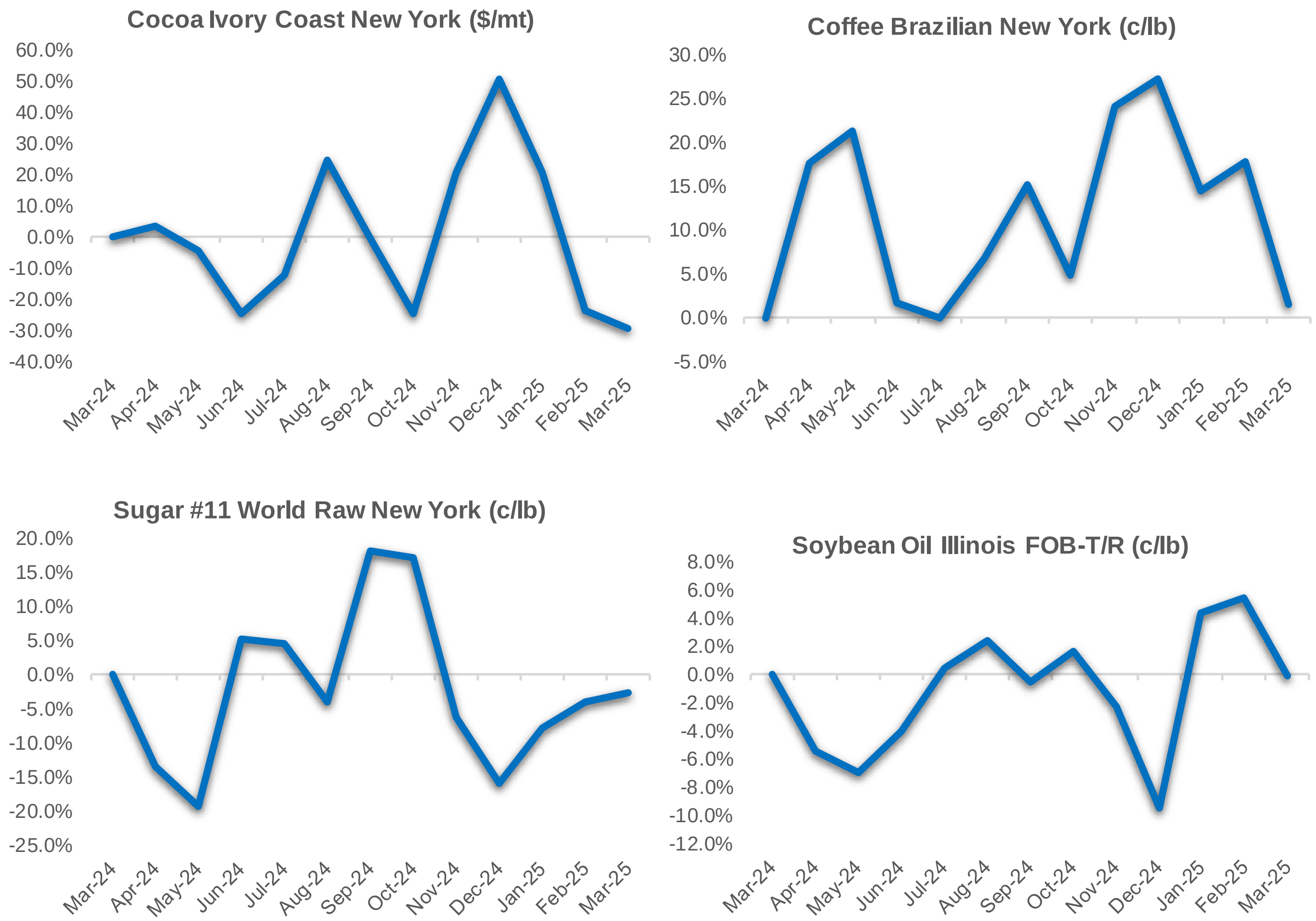
Source: Intro-act, FactSet. Data as of 3/31/2025.

Chart 13: Indexed Change in Grain Prices Last 12 Months



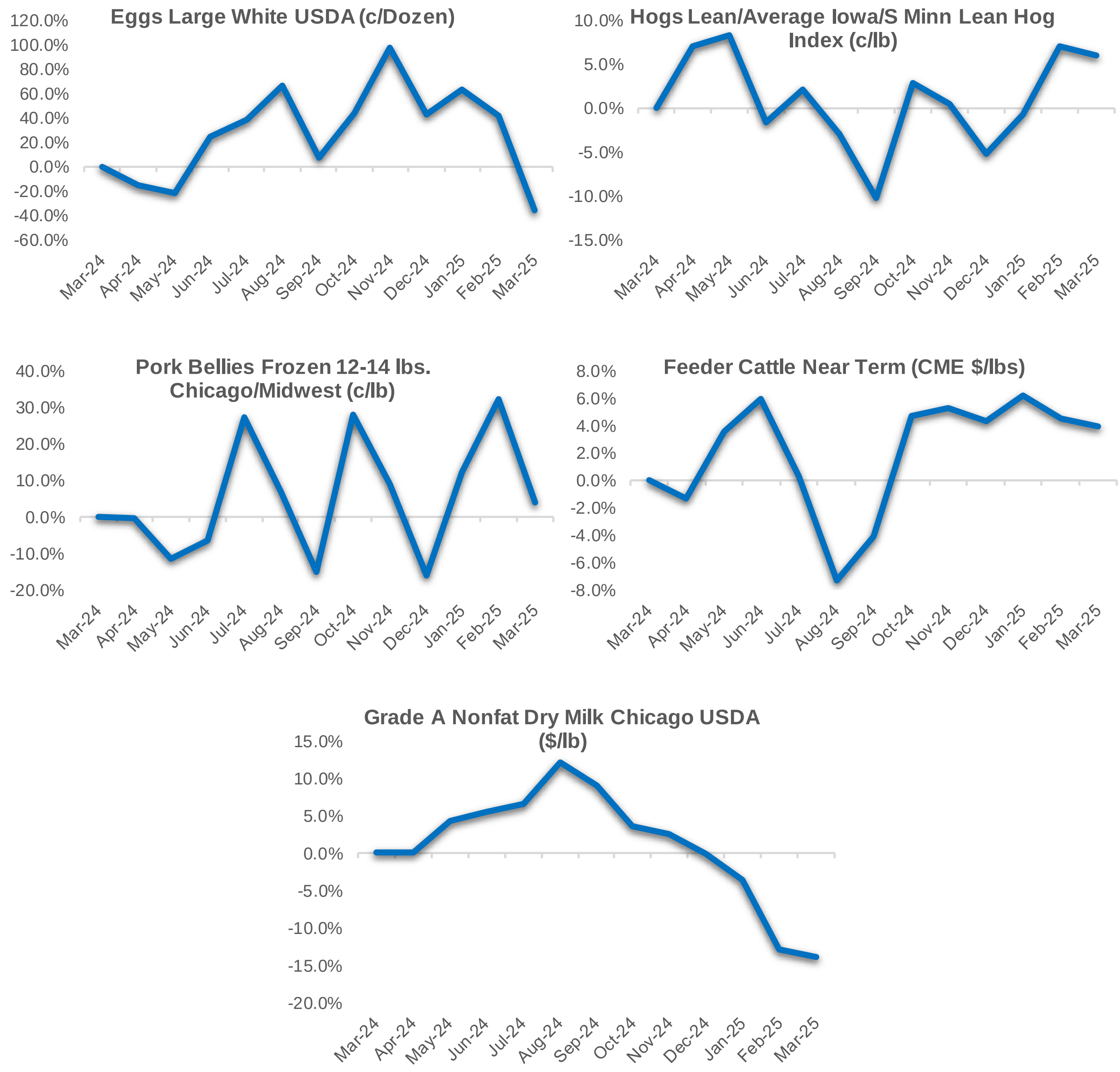
Source: Intro-act, FactSet. Data as of 3/31/2025.

Chart 14: Indexed Change in Softs and Oil Seeds Prices Last 12 Months



Source: Intro-act, FactSet. Data as of 3/31/2025.

Chart 15: Indexed Change in Livestock and Dairy Prices Last 12 Months



Source: Intro-act, FactSet. Data as of 3/31/2025.

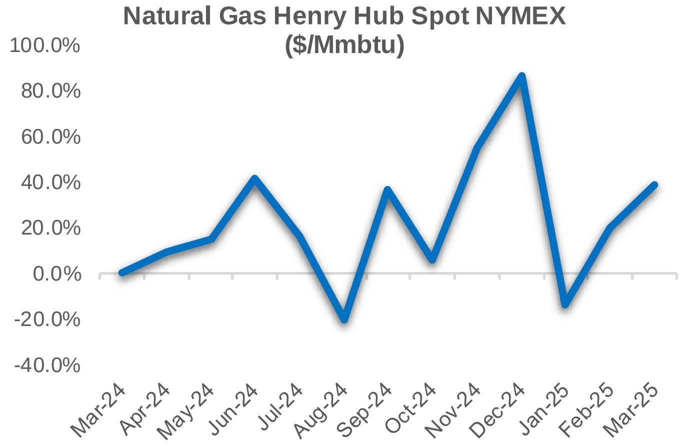
ENERGY COMMODITIES MARKETS

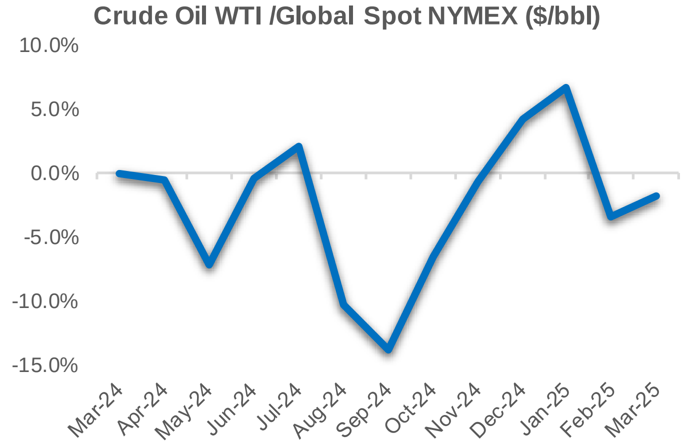
Chart 16: Energy Commodities Price Returns

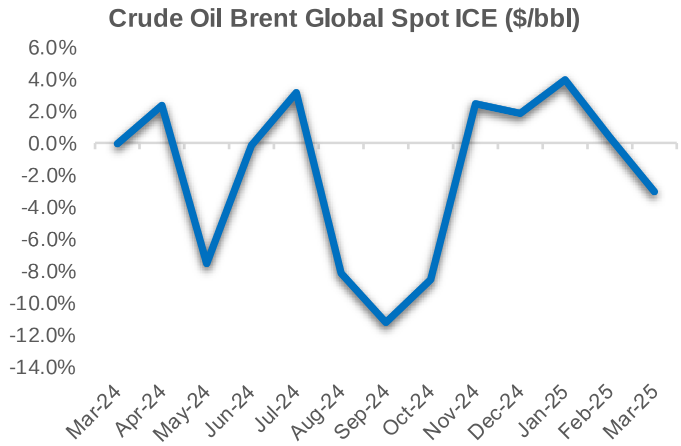
Energy Commodities	Price as of 31 Mar 2025	1M	3M	6M	1Y	YTD
Natural Gas and Crude Oil						
Natural Gas Henry Hub Spot NYMEX ($/Mmbtu)	4.12	▲ 5.32%	▲ 21.12%	▲ 55.40%	▲ 167.40%	▲ 40.55%
Crude Oil WTI /Global Spot NYMEX ($/bbl)	71.47	▲ 2.14%	▼ -1.34%	▲ 3.96%	▼ -14.88%	▼ -1.88%
Crude Oil Brent Global Spot ICE ($/bbl)	74.78	▲ 0.03%	▲ 0.27%	▲ 3.36%	▼ -13.22%	▼ -3.02%
Propane Mont Belvieu TX ($/gal)	0.91	▼ -5.53%	▲ 11.04%	▲ 31.16%	▲ 9.96%	▼ -1.09%
Refined Products						
Gasoline Conv Regular NY Harbor ($/gal)	2.02	▲ 5.09%	▼ -2.27%	▼ -1.32%	▼ -21.68%	▼ -4.67%
Diesel No. 2 Low Sulfur NY Harbor ($/gal)	2.27	▼ -3.66%	▼ -2.07%	▲ 7.75%	▼ -13.08%	▼ -7.66%
Heating Oil No. 2 NY Harbor ($/gal)	2.16	▼ -3.09%	▼ -3.39%	▲ 32.62%	▼ -14.34%	▼ -8.77%
Jet Fuel Kerosene-Type U.S. Gulf Coast ($/gal)	2.09	▼ -2.52%	▼ -6.15%	▲ 6.25%	▼ -17.22%	▼ -9.17%
Gasoil Near Term (IFEU $/mt)	686.00	▼ -0.69%	▼ -1.33%	▲ 3.27%	▼ -16.03%	▼ -3.55%
Ethanol Iowa (CRB $/gallon)	1.63	▲ 4.84%	▲ 10.54%	▲ 3.83%	▲ 10.17%	▲ 0.31%
WTI USG 3:2:1 Crack Spread	19.78	▲ 8.31%	▲ 29.27%	▲ 21.53%	▼ -16.61%	▲ 6.68%

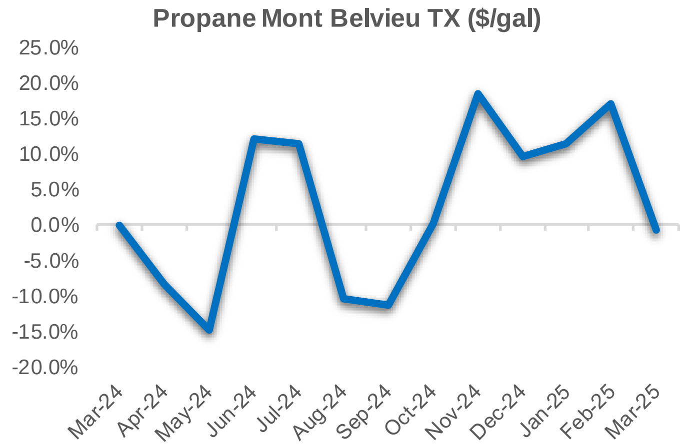
Source: Intro-act, FactSet. Data as of 3/31/2025.

Chart 17: Indexed Change in Oil and Gas Prices Last 12 Months



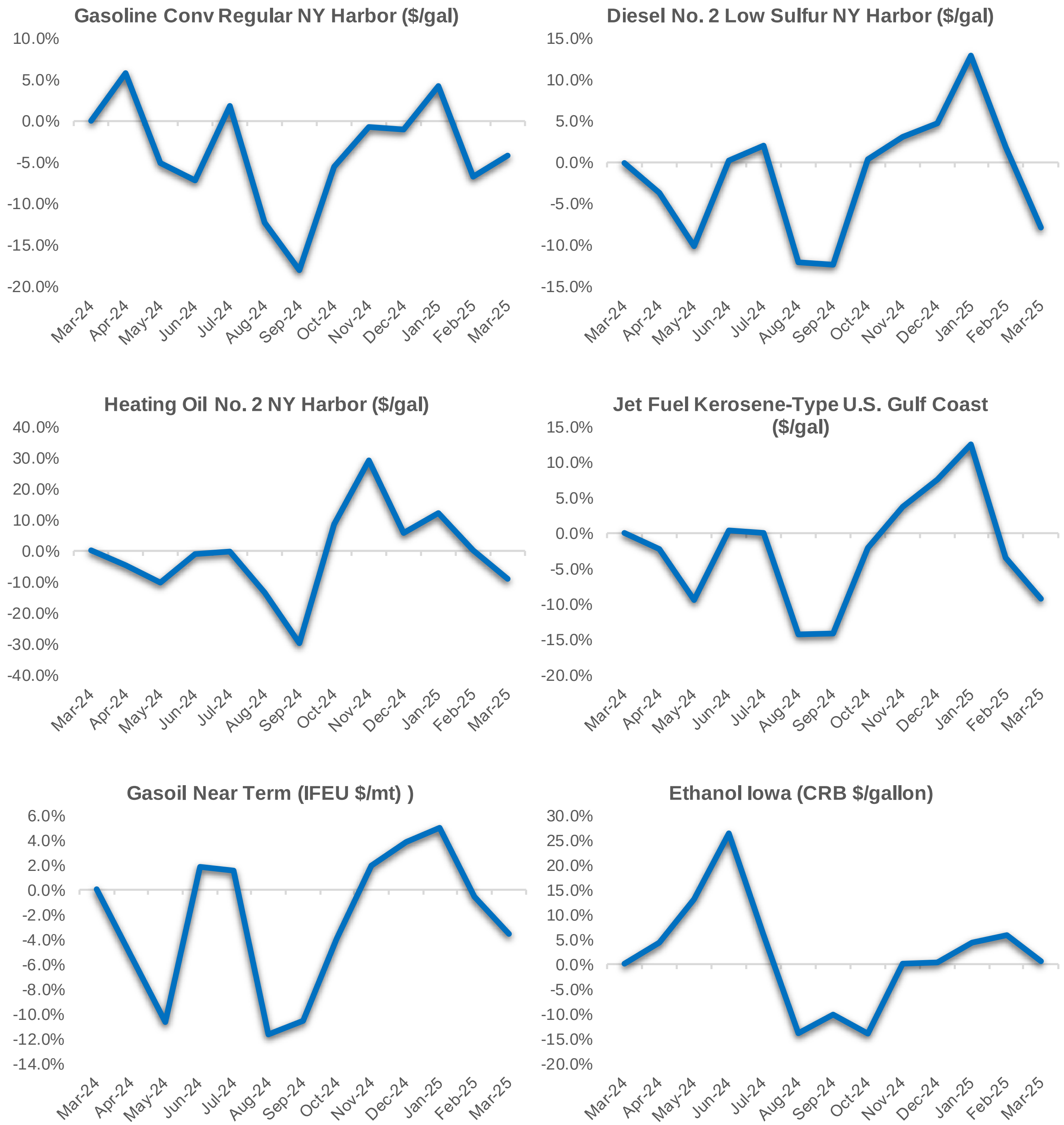






Source: Intro-act, FactSet. Data as of 3/31/2025.

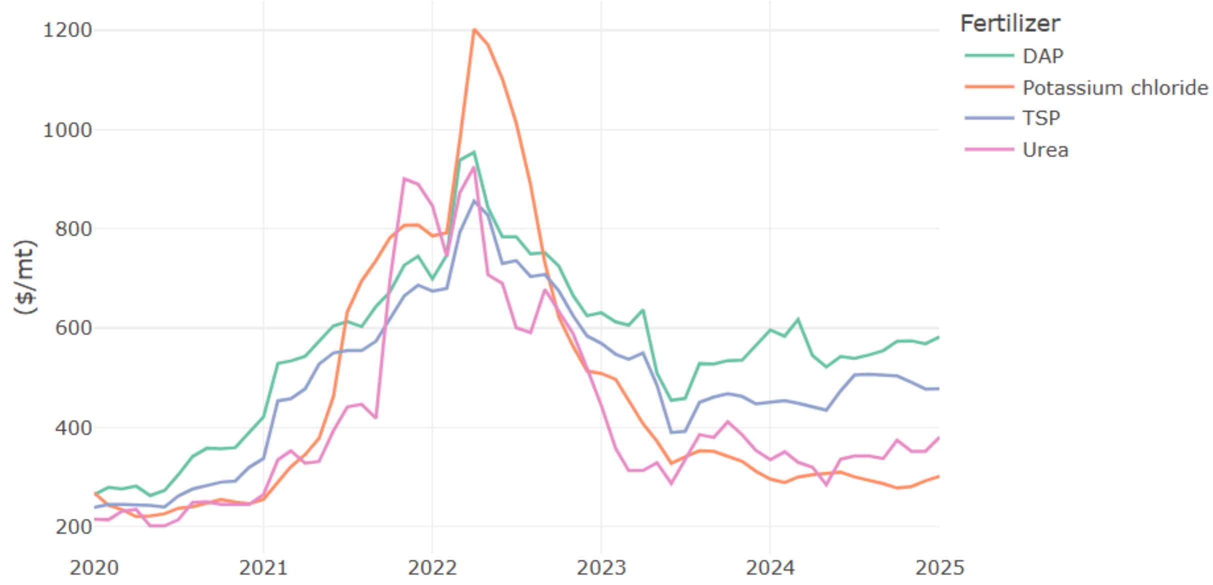
Chart 18: Indexed Change in Refined Fuel Prices Last 12 Months



Source: Intro-act, FactSet. Data as of 3/31/2025.

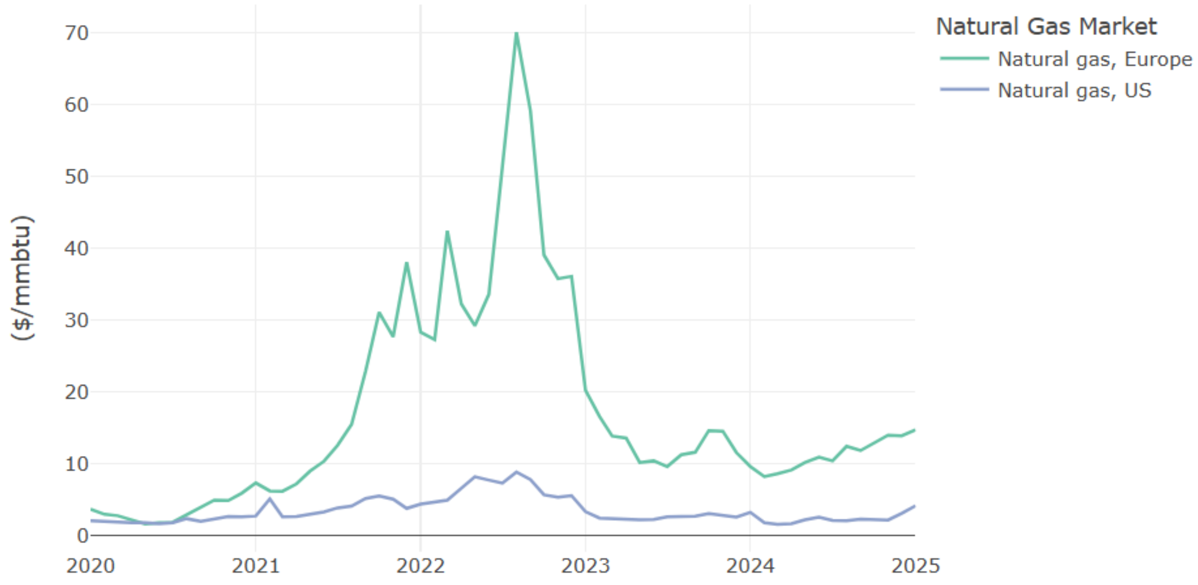
FERTILIZER MARKETS

Chart 19: Prices by Fertilizer Type (As of January, 2025)



Source Food Security Portal, Bloomberg.

Chart 20: Input Prices - Natural Gas (As of January, 2025)



Source: Food Security Portal, Bloomberg.

AGTECH CAPITAL MARKET ACTION (March 2025)

M&A Activity

Target	Target Industry	Target country	Acquirer	Deal Size ($mn)	Deal Date
China Mengniu Dairy (HKG: 02319)	AgTech	Hong Kong	Shanghai Milkground Food Tech (SHG: 600882)	57.63	21-Mar-2025
Alinova	AgTech	France	Difagri(Cédric Boulogne), FrenchFood Capital(Johann Le Cardinal), Unexo	-	28-Mar-2025
Tortuga AgTech (Industry-leading Robotic Harvesting Technology Business)	AgTech	United States	Oishii(Brendan Somerville)	-	24-Mar-2025
HerdStar	AgTech	United States	BinMaster	-	14-Mar-2025
Robotics Plus	AgTech	New Zealand	Yamaha (TKS: 7951)	-	14-Mar-2025
xFarm Technologies	AgTech	Italy	Checkplant(André Cantarelli)	-	12-Mar-2025
LiveCare (Electronic Equipment and Instruments)	AgTech	South Korea	MeTechHoldings	-	07-Mar-2025
Fasal	AgTech	India	Innoterra(Avinash Kasinathan)	-	06-Mar-2025

Source: Intro-act, Pitchbook.

PE/ VC Funding Activity*

Companies	Deal Type	Deal Size ($mn)	Investors	Deal Date
Open Blue Cobia	Later Stage VC	98.66		24-Mar-2025
Solinftec	Later Stage VC	51.75	YvY Capital Asset Management	14-Mar-2025
Nxin	Later Stage VC	39.63		04-Mar-2025
Aleph Farms	Later Stage VC	29.00	Cargill(Erin VanLanduit), DisruptAD, L Catterton	28-Mar-2025
GreenLight Biosciences	PE Growth/Expansion	25.00	Just Climate(Eduardo Mufarej)	26-Mar-2025
FarmWise Labs	Later Stage VC	21.72	Calibrate Ventures(Jason Schoettler), Riverstone Ventures	07-Mar-2025
PunaBio	Early Stage VC	16.81	IndieBio, SOSV(Po Bronson)	19-Mar-2025
Decibel Bio	Early Stage VC	12.00	Bayer (ETR: BAYN), Breakthrough Energy(Carmichael Roberts), Chan Zuckerberg Initiative, Fall Line Capital, Future Ventures (San Francisco)(Stephen Jurvetson), Syngenta	05-Mar-2025
Traction (Business/Productivity Software)	Later Stage VC	11.00	Cooperative Ventures, Elevate Ventures(Brighid King), Plymouth Growth(Brook Critchfield)	06-Mar-2025
VM Agritech	Later Stage VC	10.98		17-Mar-2025
Grow Indigo	Later Stage VC	10.00	British International Investment	25-Mar-2025
Alt Carbon	Early Stage VC	10.00		21-Mar-2025
En Solución	Later Stage VC	8.73	Celerant Capital(Michael Hyche)	14-Mar-2025
Khula!	Later Stage VC	6.81	Absa Group (JSE: ABG), AECI (JSE: AFE), E Squared Investments.(Gladwyn Leeuw), Kgodiso Development Fund	05-Mar-2025

Gårdsfisk	Later Stage VC	4.81	HATCH (Consulting Services (B2B)), HKFoods (HEL: HKFOODS), Industrifonden, LRF Ventures(Martin Alexandersson), Novax	11-Mar-2025
Agros	Later Stage VC	4.25	Asia Access Group, Gaia Impact Fund, Global Innovation Fund, Schneider Electric (Electrical Equipment) (PAR: SU), Silverstrand Capital, Steve Melhuish(Steve Melhuish), Wavemaker Impact	11-Mar-2025
Elevarm	Early Stage VC	4.20	500 Global(Khailee Ng), Insignia Venture Partners, Intudo Ventures(Patrick Yip)	13-Mar-2025
Enthos	Later Stage VC	4.00		25-Mar-2025
Völur	Later Stage VC	3.96		28-Mar-2025
Shandong Shengdi Biofertilizer	Later Stage VC	3.86		24-Mar-2025
Beta Bugs	Later Stage VC	2.19	Scottish Enterprise(Kerry Sharp), TRICAPITAL Angel Investors(Moray Martin)	05-Mar-2025
Valtec	Later Stage VC	2.00	Drone Fund, Kai Huang(Kai Huang), Kevin Lin(Kevin Lin), SparkLabs Group (NAS: SPKL), Wavemaker Partners	20-Mar-2025
Crofarm	Later Stage VC	2.00	Nuvama Wealth Management (BOM: 543988)	19-Mar-2025
AdvancedAg	Seed Round	2.00	Raven Indigenous Capital Partners(Joshua Alook)	17-Mar-2025
CubicFarm Systems (TSX: CUB)	PIPE	1.74		24-Mar-2025

*Source: Intro-act, Pitchbook. *Top 25 PE/VC deals.*

AGTECH INSTITUTIONAL INVESTOR LEAGUE

Chart 21: Agtech Institutional Owners League (Current)

Rank	Investor Name	Invested in Agtech ($M)	Q/Q Change ($M)	Change in Positions (#)	% of Total Agtech Inv.
1	The Vanguard Group, Inc.	159,643.4	(14,338.6)	-5	2.5%
2	BlackRock Fund Advisors	93,579.7	(5,420.3)	-8	2.4%
3	SSgA Funds Management, Inc.	67,765.8	(5,021.6)	-5	2.6%
4	Geode Capital Management LLC	37,793.5	(2,870.6)	-4	2.5%
5	Capital Research & Management Co.	21,193.9	(3,576.5)	-2	2.4%
6	Wellington Management Co. LLP	19,259.4	(1,435.6)	3	3.4%
7	BlackRock Investment Management (UK) Ltd.	19,137.6	(1,170.5)	3	2.9%
8	T. Rowe Price Associates, Inc. (IM)	17,440.9	(2,564.9)	3	2.2%
9	BlackRock Advisors (UK) Ltd.	17,207.4	(1,783.1)	-1	2.5%
10	Dimensional Fund Advisors LP	16,488.1	(299.5)	3	3.0%
11	Norges Bank Investment Management	15,980.8	15,169.0	60	1.2%
12	Northern Trust Investments, Inc.	15,527.7	(1,181.6)	-2	2.5%
13	State Farm Investment Management	15,157.4	(1,741.4)	0	13.7%
14	Fidelity Management & Research	14,548.9	(2,807.6)	0	0.9%
15	UBS Asset Management Switzerland AG	14,350.7	(1,166.1)	-3	4.5%
16	Charles Schwab Investment Management, Inc.	13,381.6	(556.2)	0	2.1%
17	JPMorgan Investment Management, Inc.	10,729.4	(722.6)	3	1.3%
18	Invesco Capital Management LLC	10,273.4	323.1	-1	3.3%
19	Capital Research & Management Co. (Global Investors)	8,843.2	603.3	0	1.5%
20	Vanguard Global Advisers LLC	7,852.0	(775.2)	1	2.3%
21	Fisher Asset Management LLC	7,690.9	(138.4)	0	3.0%
22	Capital Research & Management Co. (International Investors)	7,644.3	(734.5)	-2	1.4%
23	Legal & General Investment Management Ltd.	7,535.8	(2,964.3)	-5	2.9%
24	Parametric Portfolio Associates LLC	7,331.2	(497.5)	0	2.4%
25	AllianceBernstein LP	7,225.2	(1,562.4)	-16	2.3%
	Others	777,750.3	(67,917.9)	1,365	0.0%
	Total	**1,411,332.6**	**(105,151.4)**	**1,387**	**0.0%**

Source: Intro-act, 13F Filings.

Chart 22: Top 25 Agtech Buyers (Q/Q)

Rank	Investor Name	Invested in Agtech ($M)	Q/Q Change ($M)	Change in Positions (#)	% of Total Agtech Inv.
1	SBI Securities Co., Ltd.	12.0	12.0	89	0.4%
2	KLP Kapitalforvaltning AS	1,111.0	468.5	73	3.5%
3	Norges Bank Investment Management	15,980.8	15,169.0	60	1.2%
4	R Squared Ltd. (Hong Kong)	4.4	4.4	47	4.3%
5	Caitong International Asset Management Co., Ltd.	1.8	1.8	45	1.7%
6	SpiderRock Advisors LLC	64.5	(12.3)	44	1.2%
7	MAI Capital Management LLC	82.1	4.5	43	0.6%
8	Parkworth Wealth Management, Inc.	0.1	0.1	43	0.1%
9	Osaic Advisory Services LLC	50.3	49.3	39	0.7%
10	WhippleWood Advisors LLC	0.5	0.5	38	0.3%
11	Sierra Ocean LLC	0.7	0.7	37	0.6%
12	Golden State Wealth Management LLC	3.2	3.2	36	0.5%
13	Transce3nd LLC	0.7	0.7	36	0.2%
14	Aster Capital Management (DIFC) Ltd.	4.4	4.4	34	1.7%
15	Raiffeisen Kapitalanlage-Gesellschaft mbH	447.4	383.0	33	4.1%
16	Bayforest Capital Ltd.	4.9	4.9	33	6.1%
17	Nomura Securities International, Inc.	66.3	57.7	32	1.3%
18	The Northern Trust Company of Hong Kong Ltd.	238.0	238.0	30	4.4%
19	Allstate Investment Management Co.	34.9	34.7	29	1.0%
20	Parvin Asset Management LLC	7.2	7.2	29	7.7%
21	SEI Investments (Europe) Ltd.	54.9	35.9	28	3.0%
22	MUFG Securities Americas, Inc.	16.8	16.8	28	2.1%
23	Northern Trust Asset Management Australia Pty Ltd.	220.2	220.2	27	2.5%
24	Fideuram Asset Management SGR SpA	78.7	(41.3)	26	1.2%
25	Physician Wealth Advisors, Inc.	1.5	0.3	26	0.2%

Source: Intro-act, 13F Filings.

Chart 23: Top 25 Agtech Sellers (Q/Q)

Rank	Investor Name	Invested in Agtech ($M)	Q/Q Change ($M)	Change in Positions (#)	% of Total Agtech Inv.
1	RBC Dominion Securities, Inc.	3.1	(4.2)	-85	0.1%
2	Capital Performance Advisors LLP	0.4	(1.0)	-78	0.1%
3	State Board of Administration of Florida Retirement System	1,219.5	(605.1)	-65	1.6%
4	State Teachers Retirement System of Ohio	58.7	(703.4)	-62	0.2%
5	Russell Investments Canada Ltd.	52.3	(15.9)	-51	2.3%
6	Claris Advisors LLC	1.3	0.1	-43	0.5%
7	Millburn Ridgefield Corp.	0.1	(1.0)	-41	0.0%
8	Banque Cantonale Vaudoise (Investment Management)	11.7	(594.2)	-40	0.2%
9	Ashton Thomas Securities LLC	2.2	(1.0)	-38	0.6%
10	Jennison Associates LLC	313.3	(264.1)	-37	0.2%
11	Paradice Investment Management LLC	2.9	(4.6)	-37	0.3%
12	abrdn Investment Management Ltd.	1,760.5	(860.2)	-31	2.6%
13	MultiConcept Fund Management SA	1.2	(168.6)	-31	0.0%
14	MBB Capital Partners LLC	37.2	(22.6)	-28	4.4%
15	Credit Suisse (Italy) SpA	2.5	(14.7)	-28	1.5%
16	Catalyst Funds Management Pty Ltd.	2.1	(5.2)	-28	0.5%
17	Mendota Financial Group LLC	0.4	(0.4)	-28	0.3%
18	Harris Associates LP	5,183.7	(229.8)	-27	5.0%
19	IFM Investors Pty Ltd.	16.4	(260.1)	-27	0.2%
20	Paloma Partners Management Co.	47.0	(2.9)	-26	3.6%
21	MetLife Investment Management LLC	410.8	(60.6)	-24	2.1%
22	Baldwin Wealth Partners LLC	34.8	(5.8)	-24	2.4%
23	Jaffe Tilchin Investment Partners LLC	9.9	0.4	-24	0.7%
24	Equitable Investment Management Group LLC	21.9	(36.2)	-22	0.5%
25	ClariVest Asset Management LLC	20.1	(12.8)	-22	2.5%

Source: Intro-act, 13F Filings.

ETF SPOTLIGHT

iShares Emergent Food and AgTech Multisector ETF (IVEG)

Closing Price ($)	CUSIP	Expense Ratio	Inception
17.84	46436E395	0.47	04/25/2022

AUM ($M)	Shares Outstanding (#)	Fund Flows (1M, $)	Fund Flows (1Y, $)
3.81	200,000	-	-989,000

Fund Description

The iShares Emergent Food and AgTech Multisector ETF (IVEG) is designed to provide investors with exposure to companies at the forefront of agricultural technology and innovative food products and services. The ETF's constituent selection process focuses on five-year net profit and projected revenue related to these themes, and weighting is determined by free-float market capitalization. By investing in IVEG, investors gain access to a diverse range of global companies positioned to benefit from groundbreaking advancements in agricultural technology, sustainable food product and packaging solutions, nutritional innovations, and the growing trend of alternative proteins. IVEG's forward-looking approach seeks to capitalize on long-term growth opportunities, allowing investors to participate in shaping the future of the global economy through food innovation and agricultural technology across various sectors, geographies, and company sizes.

ETF Returns Annualized (As of 3/31/2025)

1 Year	3 Year	5 Year	Since Inception
1.44%	-	-	-4.02%

ETF Returns Cumulative (As of 3/31/2025)

1 Month	3 Month	YTD	Since Inception
-2.13%	2.44%	2.44%	-11.35%

Top 10 Holdings (updated as of 4/08/2025)

Holdings	% Allocation	Market Value
INTERNATIONAL PAPER	5.24%	$189,180
DANONE SA	4.93%	$177,884
BAYER AG	4.46%	$160,768
KELLANOVA	4.26%	$153,741
DEERE	4.17%	$150,328
NUTRIEN LTD	4.13%	$149,048
BASF N	4.04%	$145,713
NOVOZYMES B	4.03%	$145,446
CORTEVA INC	4.00%	$144,130
ECOLAB INC	3.98%	$143,739

Source: Intro-act, FactSet.

For more information on IVEG visit https://www.ishares.com/us/products/326601/ishares-emergent-food-and-agtech-multisector-etf/

Global X AgTech & Food Innovation ETF (KROP)

Closing Price ($)	CUSIP	Expense Ratio	Inception
9.55	37954Y178	0.51	07/12/2021

AUM ($M)	Shares Outstanding (#)	Fund Flows (1M, $M)	Fund Flows (1Y, $M)
8.00	840,000	-0.41	5.0

Fund Description

The Global X AgTech & Food Innovation ETF (KROP) is designed to capitalize on the rapid advancements in the agriculture and food sectors by investing in companies driving innovation and technology adoption. KROP targets companies engaged in various facets of AgTech, such as precision agriculture, agricultural automation, biotechnology, and controlled environment agriculture like vertical farming and hydroponics. Additionally, it includes firms contributing to food innovation, particularly in protein and dairy alternatives, as well as reducing food waste. KROP offers exposure to a high-growth potential market, with the global AgTech sector projected to expand from nearly $16 billion in 2022 to potentially surpass $35 billion by 2030. This thematic ETF benefits from global trends addressing food security and environmental sustainability, making it well-positioned for growth. KROP's unconstrained investment approach ensures exposure to the forefront of evolving production and consumption dynamics in the AgTech and Food Innovation sectors, regardless of sector or geography.

ETF Returns Annualized (As of 3/31/2025)

1 Year	3 Year	5 Year	Since Inception
-9.09%	-19.56%	-	-21.27%

ETF Returns Cumulative (As of 3/31/2025)

1 Month	3 Month	YTD	Since Inception
-0.40%	3.43%	3.43%	-58.93%

Top 10 Holdings (updated as of 4/09/2025)

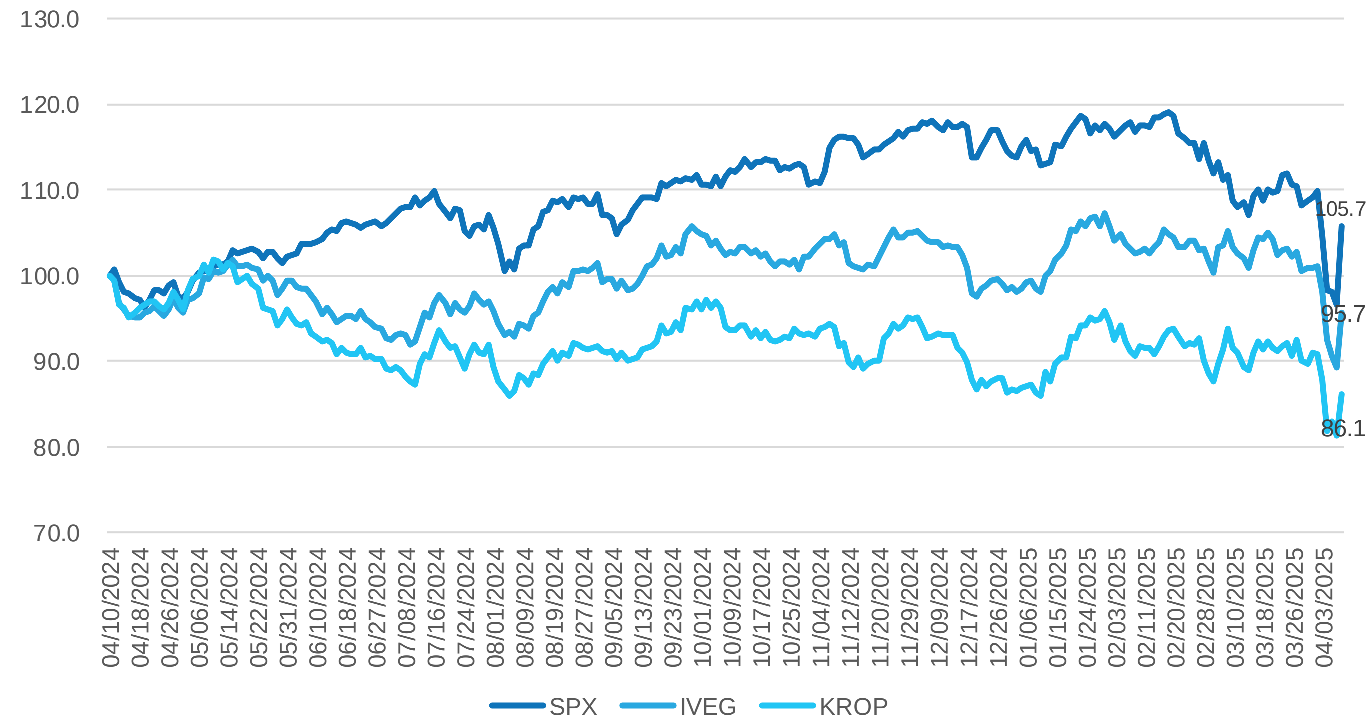
Holdings	% Allocation	Market Value
DEERE & CO	14.41%	$1,153,199
NUTRIEN LTD	12.92%	$1,033,505
CORTEVA INC	12.85%	$1,028,372
KUBOTA CORP	10.36%	$829,315
CNH INDUSTRIAL NV	5.31%	$425,147
HEBEI YANGYUAN-A	5.24%	$419,367
YUAN LONGPING-A	4.59%	$367,090
AGCO CORP	4.46%	$357,055
UNILEVER PLC	4.16%	$332,536
NUFARM LTD	3.58%	$286,152

Source: Intro-act, FactSet.

For more information on KROP visit: https://www.globalxetfs.com/funds/krop/#performance

12-MONTH ETF PERFORMANCE

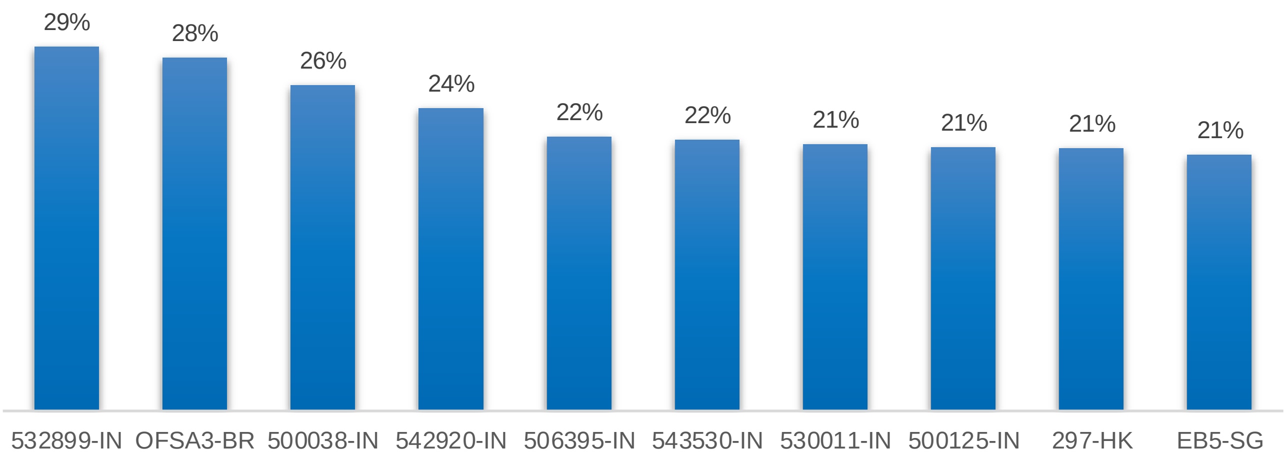
Chart 24: 12-Month Indexed Returns of IVEG and KROP vs. S&P 500



Source: Intro-act, FactSet, Data as of 04/09/25.

GAINERS AND LOSERS – AGTECH STOCKS

Chart 25: Top 10 M/M Agtech Gainers (March 2025)

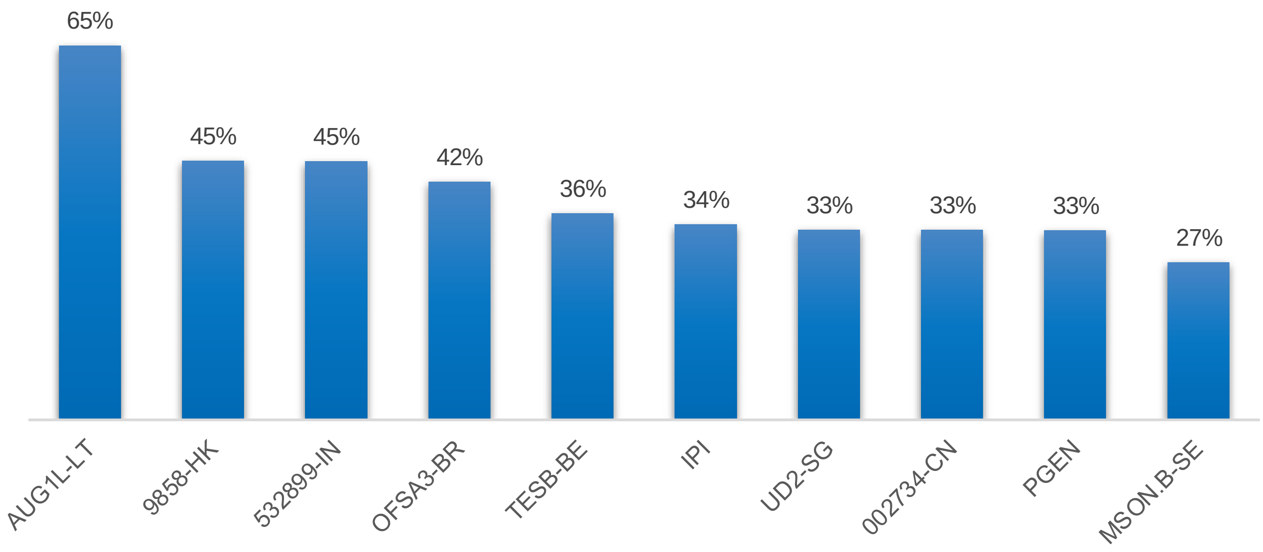


Source: Intro-act, FactSet.

Chart 26: Top 10 M/M Agtech Losers (March 2025)

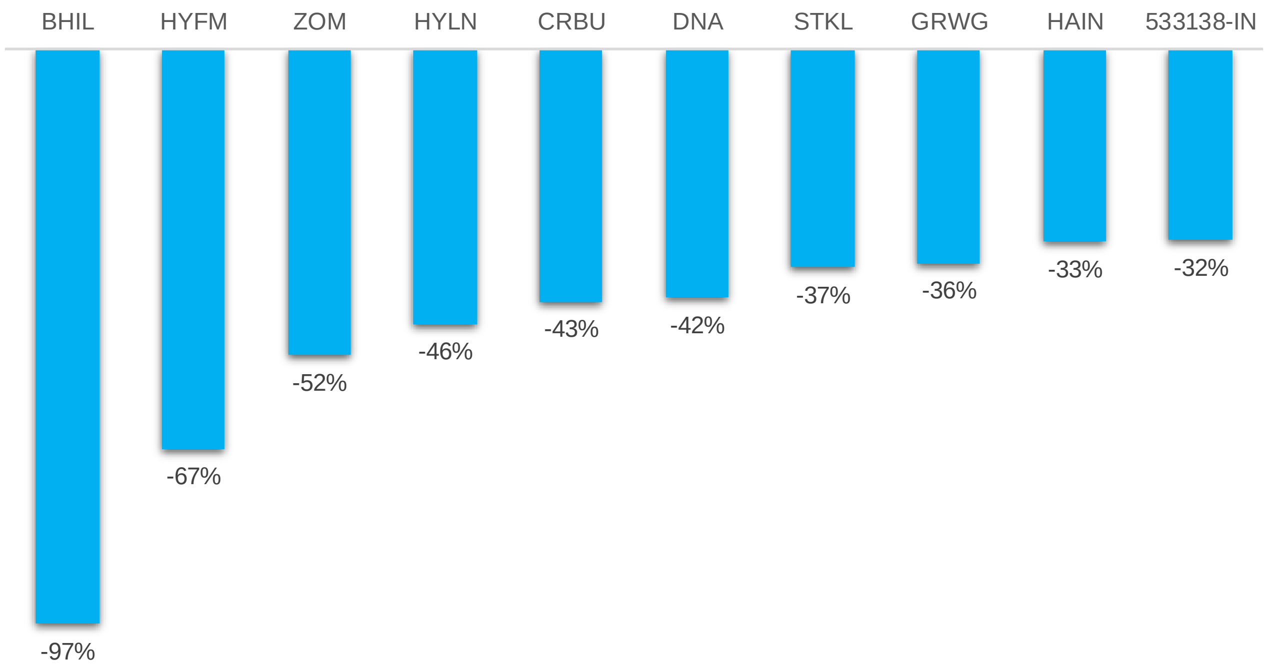
Source: Intro-act, FactSet.

Chart 27: Top 10 YTD Agtech Gainers



Source: Intro-act, FactSet. YTD Data as of 03/31/25.

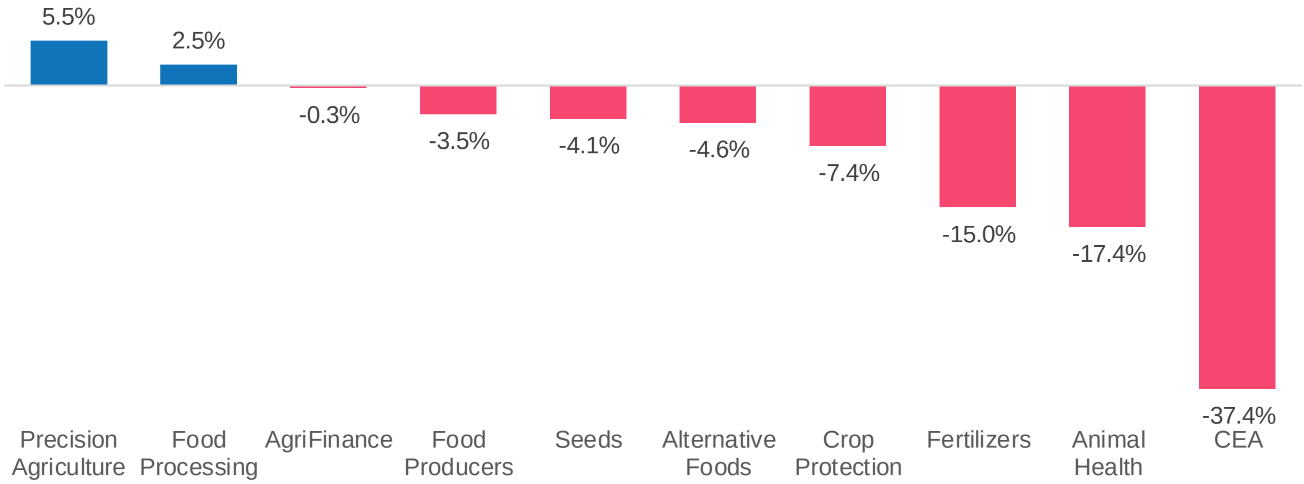
Chart 28: Top 10 YTD Agtech Losers



Source: Intro-act, FactSet. YTD Data as of 03/31/25.

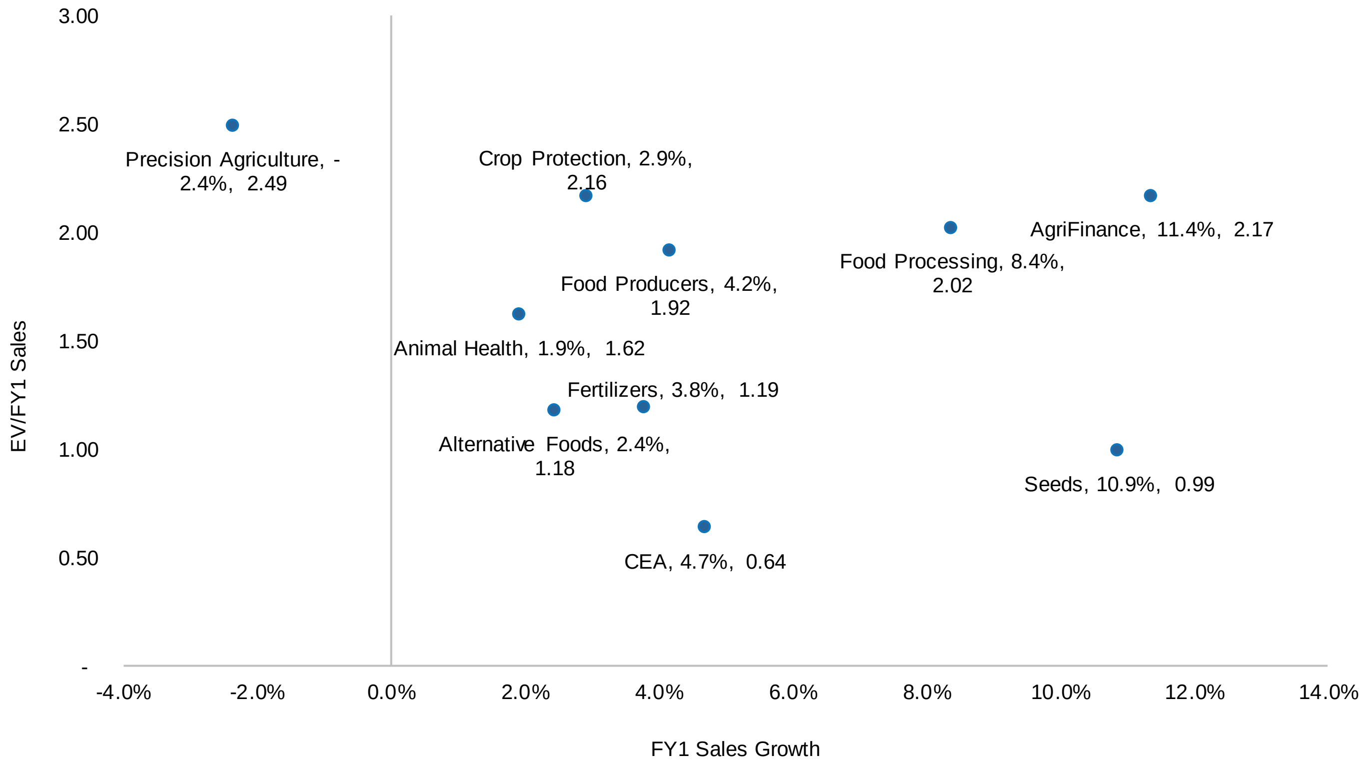
SEGMENT RETURN AND VALUATION

Chart 29: YTD Stock Price Returns by Segment



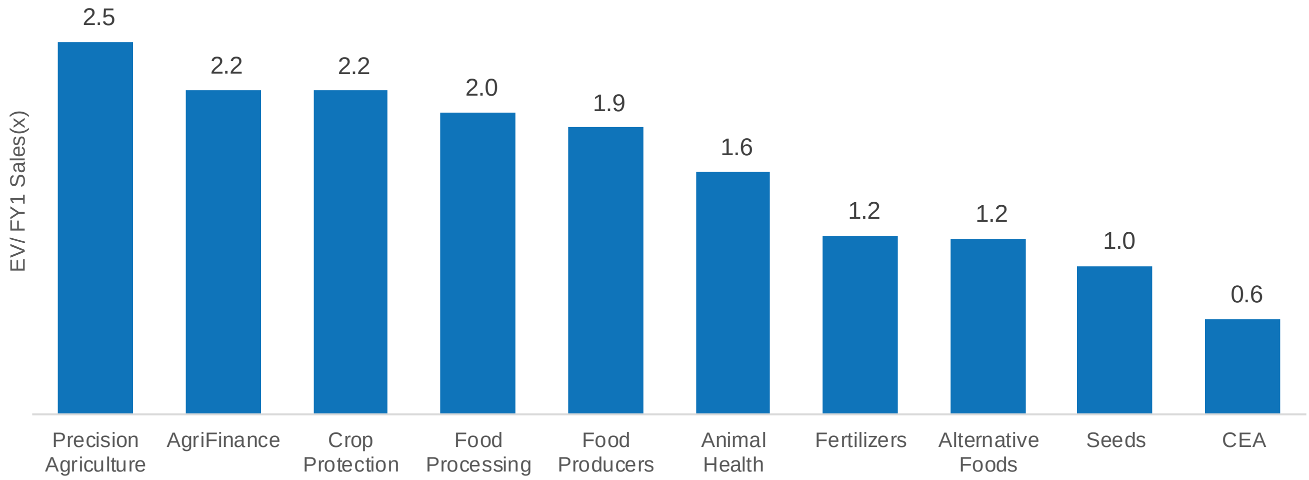
Source: Intro-act, FactSet. YTD Data as of 03/31/25.

Chart 30: Agtech Industry Growth and Valuation by Segment



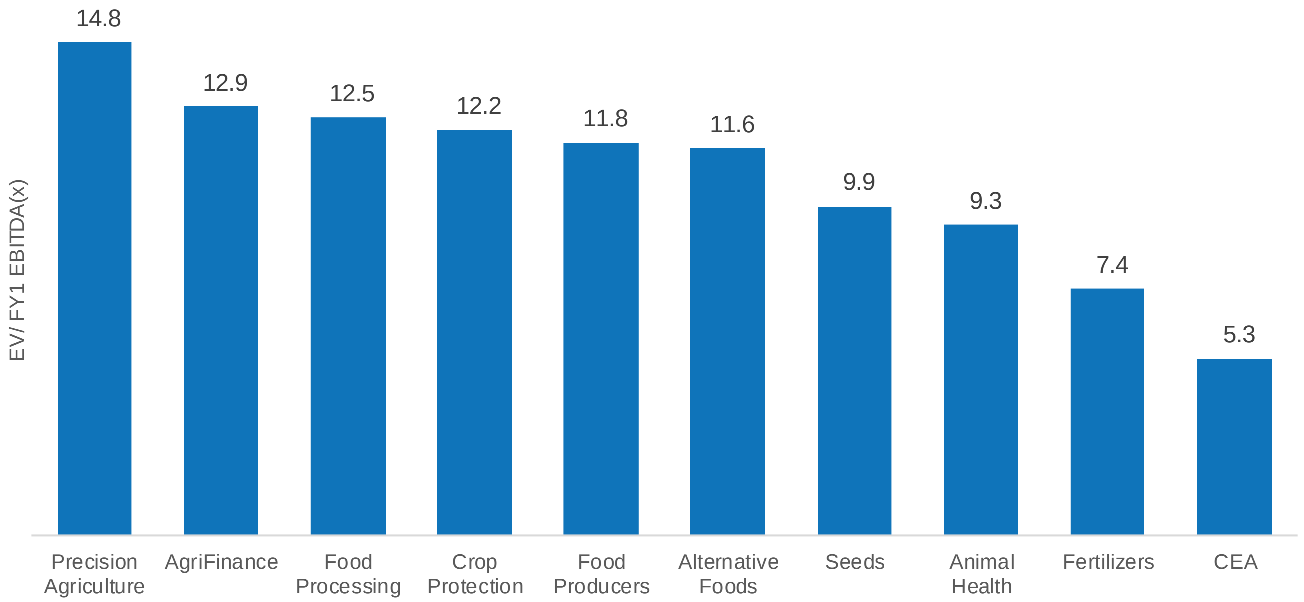
Source: Intro-act, FactSet. Data as of 03/31/25. FY0 = last reported year. FY1 = first unreported year.

Chart 31: EV/ FY1 Sales Multiple by Segment



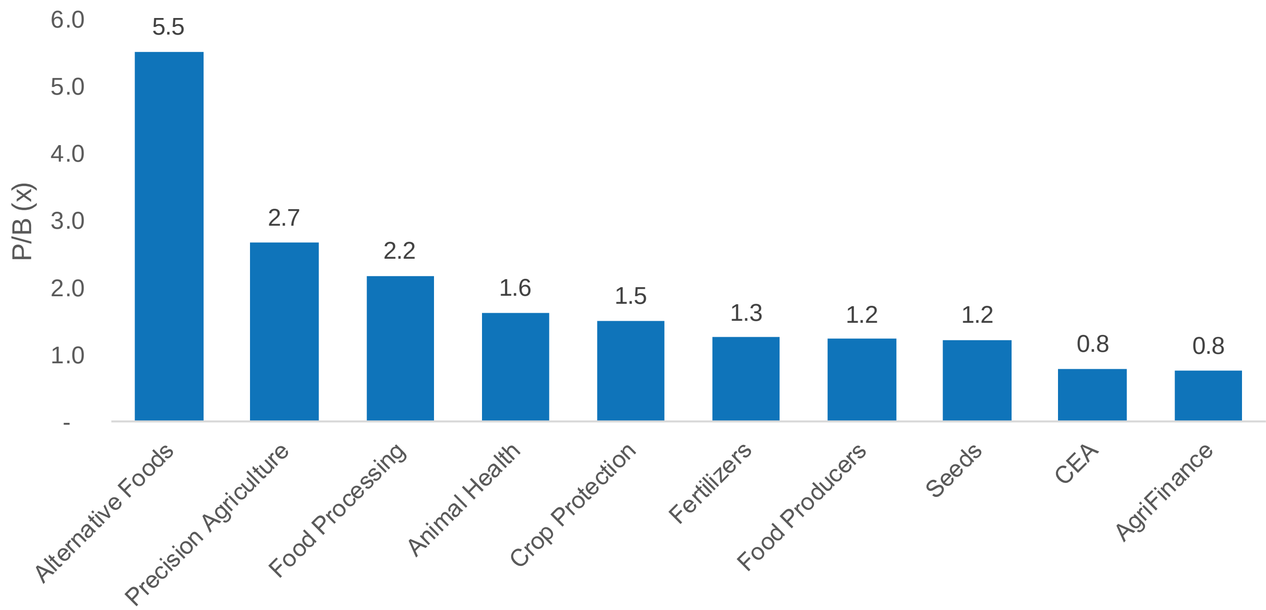
Source: Intro-act, FactSet. Data as of March 31, 2025.

Chart 32: EV/ FY1 EBITDA Multiple by Segment



Source: Intro-act, FactSet. Data as of March 31, 2025.

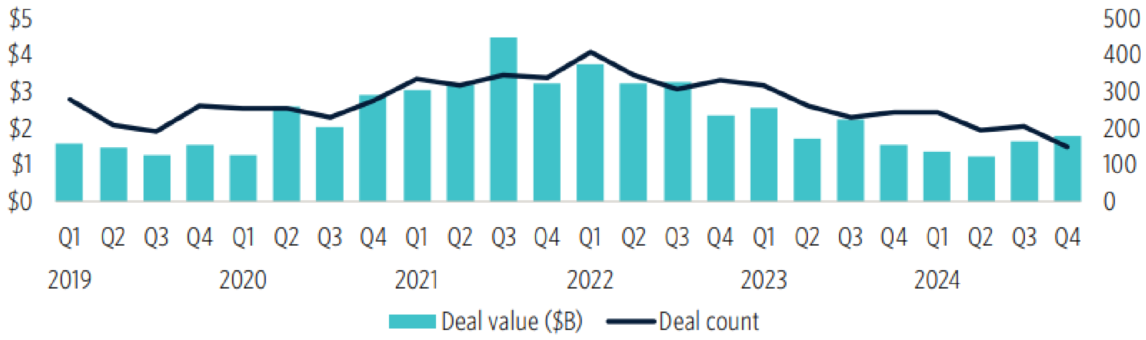
Chart 33: Price-to-Book Multiple by Segment



Source: Intro-act, FactSet. Data as of March 31, 2025.

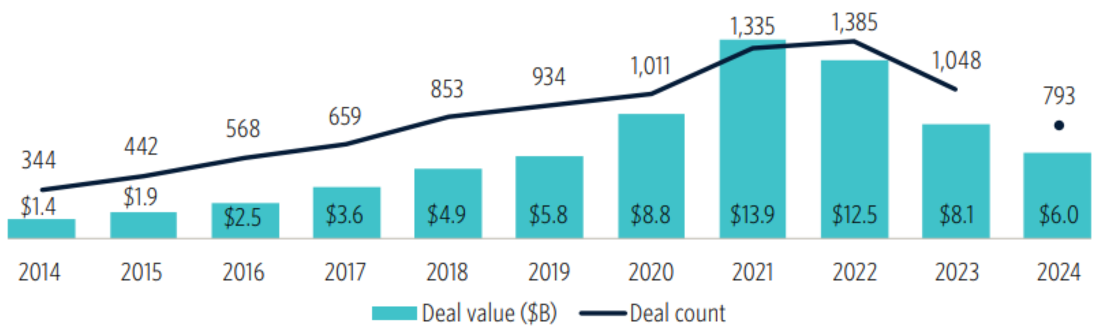
AGTECH CAPITAL MARKET TRENDS

Chart 34: Agtech VC Deal Activity by Quarter



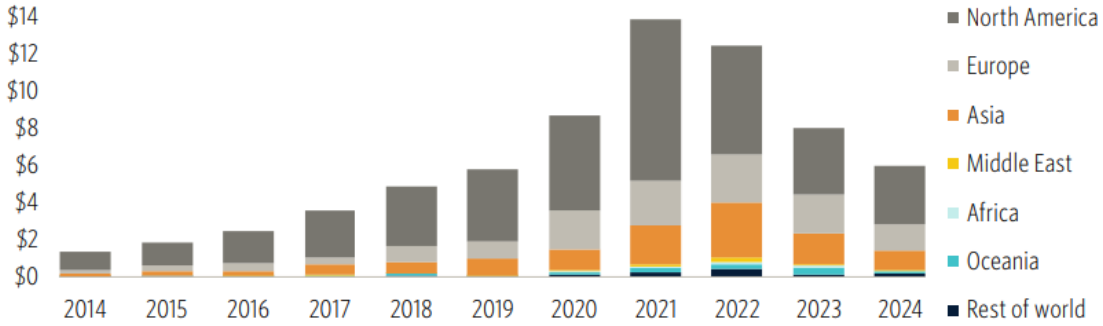
Source: Pitchbook, Data as of December 31, 2024.

Chart 35: Global Agtech VC Deal Activity – Last 10 years



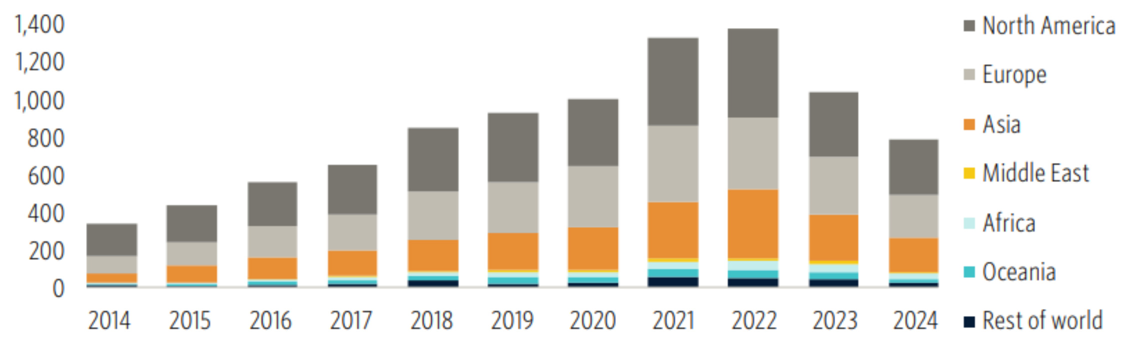
Source: Pitchbook, Data as of December 31, 2024.

Chart 36: Agtech VC Deal Value ($B) by Region



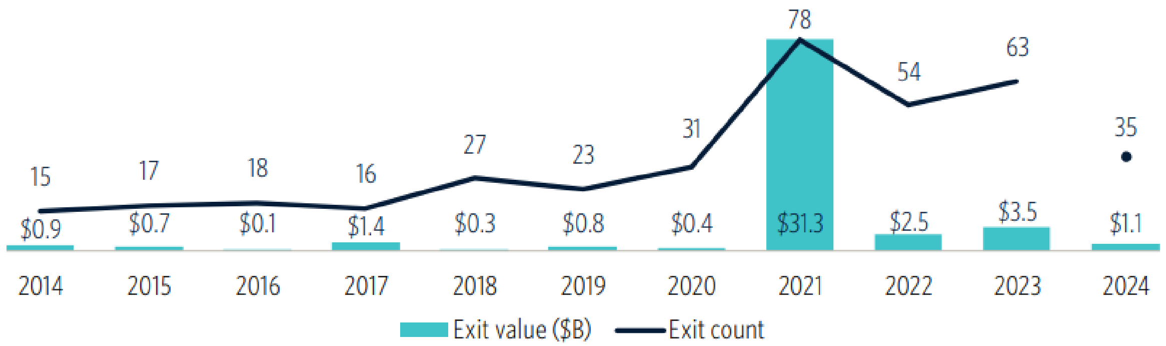
Source: Pitchbook, Data as of December 31, 2024.

Chart 37: Agtech VC Deal Count by Region



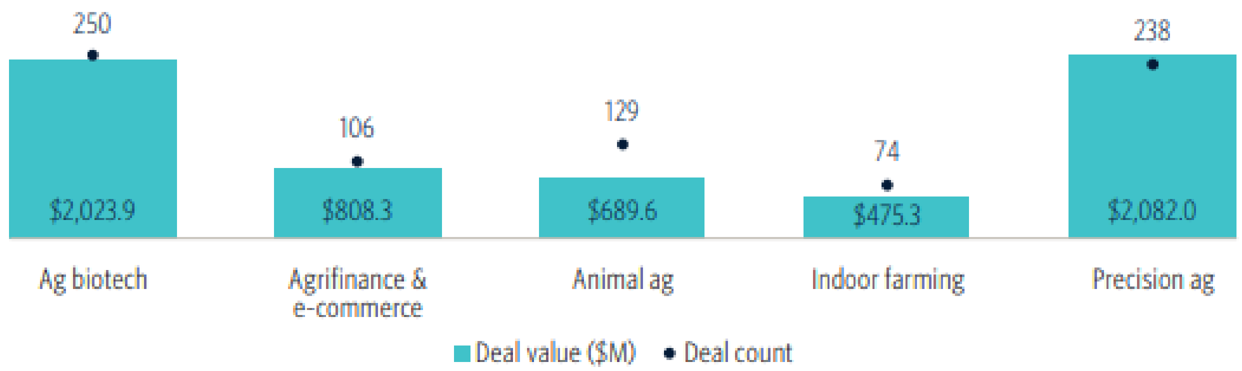
Source: Pitchbook, Data as of December 31, 2024.

Chart 38: Agtech VC Exit Activity



Source: Pitchbook, Data as of December 31, 2024.

Chart 39: Trailing 12-Month (TTM) Agtech VC Deal Activity by Segment



Source: Pitchbook, Data as of December 31, 2024.

Chart 40: Key Agtech Venture-Growth Deals in Q4 2024

Company	Deal Date (2024)	Subsegment	Deal Value ($M)
Aerodyne	9-Dec	Drones & imagery analytics	200.0
Sound Agriculture	17-Dec	Plant biotech	100.0
Ecozen	11-Nov	Robotics & smart field equipment	75.0
Terviva	20-Dec	Plant biotech	46.2
Nuritas	20-Dec	Plant data & analysis	42.0
Sistema.bio	14-Oct	Plant biotech	19.3
Aereo	7-Oct	Drones & imagery analytics	16.8
Supernormal Greens	31-Oct	Indoor growers	14.4
Orbital Sidekick	7-Nov	Drones & imagery analytics	8.6

Source: Intro-act, Pitchbook, Data as of December 31, 2024.

Chart 41: Top VC-Backed Agtech Companies by Total VC Raised to Date

Company	Category	VC($M) raised to date
Indigo	Agribusiness marketplaces, Plant biotech	1,951.6
Farmers Business Network	Agribusiness marketplaces, farm management software, finance & insurance	1,074.2
Plenty	Indoor growers	941.0
Enerkem	Biomaterials	901.6
Plant-Ag	Indoor growers	800.0
Apeel	Plant biotech	695.0
Solugen	Biomaterials	637.8
Pivot Bio	Plant biotech	622.0
Ynsect	Insect farming	583.4
Inari	Plant biotech	579.0

Source: Intro-act, Pitchbook, Data as of December 31, 2024.

Chart 42: Key Agtech VC Exits in Q4 2024

Company	Close Date (2024)	Subsegment
Synspective	19-Dec	Drones & imagery analytics
Rezatec	12-Dec	Drones & imagery analytics
Geora	04-Dec	Finance & insurance
Leaf Trade	26-Nov	Agribusiness marketplaces
Ferris Genomics	20-Nov	Animal biotech
Databourg Systems	15-Nov	Farm management software
Athenium Analytics	06-Nov	Drones & imagery analytics
AQUAOSO	19-Dec	Finance & insurance
ReCarbn	19-Dec	Biomaterials

Source: Intro-act, Pitchbook, Data as of December 31, 2024.

AGTECH SPAC ACTION

Chart 43: Agtech SPACs (Searching)

S. No	SPAC Name	Ticker	IPO Date	Outside Deadline
1	Andretti Acquisition Corp. II	POLE	9/6/2024	9/6/2026
2	SilverBox Corp IV	SBXD	8/16/2024	8/16/2026
3	HCM II Acquisition Corp.	HOND	8/16/2024	8/16/2026
4	Voyager Acquisition Corp	VACH	8/9/2024	8/9/2026
5	DT Cloud Star Acquisition Corp	DTSQ	7/24/2024	7/24/2026
6	Graf Global Corp.	GRAF	6/26/2024	6/26/2026
7	Lionheart Holdings	CUBW	6/18/2024	6/18/2026
8	Churchill Capital Corp IX	CCIX	5/2/2024	11/2/2025
9	Black Hawk Acquisition Corp	BKHA	3/20/2024	12/20/2025
10	DT Cloud Acquisition Corp	DYCQ	2/20/2024	2/20/2026
11	COLOMBIER ACQUISITION CORP. II	CLBR	11/20/2023	2/20/2026
12	Ares Acquisition Corp II	AACT	4/20/2023	4/20/2025
13	SilverBox Corp III	SBXC	2/27/2023	3/2/2025
14	Hudson Acquisition I Corp.	HUDA	10/14/2022	10/18/2025
15	Qomolangma Acquisition Corp.	QOMO	9/29/2022	9/29/2025
16	Cartesian Growth Corp II	RENE	5/5/2022	11/10/2024
17	A SPAC II Acquisition Corp.	ASCB	5/2/2022	8/5/2025
18	CF Acquisition Corp. VII	CFFS	12/15/2021	3/20/2025
19	Trajectory Alpha Acquisition Corp.	TCOA	12/9/2021	11/14/2024
20	Infinite Acquisition Corp.	NFNT	11/19/2021	11/23/2024

Source: Intro-act, Boardroom Alpha.

Chart 44: Agtech SPACs (Business Combination Agreement Announced)

S.No.	SPAC Name	Ticker	Target Company	EV ($ Mn)	Expected Closing
1	Iron Horse Acquisitions Corp.	IROH	Rosey Sea Holdings / Zhong Guo Liang Tou Group	523	2Q25
2	Chenghe Acquisition II Co.	CHEB	Polibeli Group Ltd	-	-
3	Agriculture & Natural Solutions Acquisition	ANSC	Australian Food and Agriculture Company Limited	625	4Q25
4	Kairous Acquisition Corp. Ltd	KACLU	Bamboo Mart Limited	-	4Q24
5	Bite Acquisition Corp.	BITE	Above Food Corp.	319	3Q23

Source: Intro-act, Boardroom Alpha.

Chart 45: Agtech SPACs (Closed Deals Since January 2022)

S. No	SPAC Name	Ticker (Old)	DE-SPAC	Ticker	Closing Date
1	Globis Acquisition Corp.	GLAQ	Forafric	AFRI	10-Jun-22
2	Agrico Acquisition Corp.	RICO	Kalera	KAL	28-Jun-22
3	Riverview Acquisition Corp.	RVAC	Westrock Coffee Company	WEST	26-Aug-22
4	Lightjump Acquisition Corporation	LJAQ	Moolec Science	MLEC	3-Jan-23
5	TPB Acquisition Corporation I	TPBA	Lavoro	TPBA	27-Feb-23
6	Perception Capital Corp. II	PCCT	Spectaire Inc.	SPEC	19-Oct-23
7	10X Capital Venture Acquisition Corp. II	VCXA	African Agriculture, Inc.	AAGR	6-Dec-23
8	Lakeshore Acquisition II Corp.	LBBB	Nature's Miracle	NMHI	11-Mar-24
9	Edoc Acquisition Corp	ADOC	Australian Oilseeds Investments	COOT	21-Mar-24
10	Bite Acquisition Corp.	BITE	Above Food Corp.	ABVE	1-Jul-24
11	Coliseum Acquisition Corp.	MITA	Rain Enhancement Technologies	RAIN	1-Jan-25

Source: Intro-act, Boardroom Alpha.

AGTECH EVENTS CALENDAR

S. No.	Event	Location	Dates
1	Global AgInvesting 2025	New York, US	22nd–24th April 2025
2	International Conference on Food Technology, Agriculture and Fisheries	Edinburgh, UK	1st May 2025
3	Reuters Events: Transform Food & Agriculture Europe 2025	Amsterdam, Netherlands	3rd–4th June 2025
4	World Pork Expo	Iowa, US	4th–5th June 2025
5	AgTC Annual Meeting	Tacoma, US	16th–19th June 2025
6	GreenTech Forum Brussels 2025	Brussels, Belgium	17th–18th June 2025
7	International Conference on Agriculture Engineering 2025	Berlin, Germany	23rd–24th June 2025
8	15th European Conference on Precision Agriculture (ECPA 2025)	Barcelona, Spain	29th June –3rd July 2025
9	The Organic Summit 2025 (OS25)	Copenhagen, Denmark	18th–19th August 2025
10	Farm Progress Show	Decatur, US	26th–28th August 2025
11	Commercial UAV Expo	Las Vegas, US	2nd–4th September 2025
12	Taiwan Smart Agriweek	Taipei, Taiwan	3rd–5th September 2025
13	6th Edition of Global Vertical Farming Show	Dubai, UAE	10th–11th September 2025
14	World Dairy Expo	Madison, US	30th September-3rd October 2025
15	Vertical Farming World Congress	Amsterdam, Netherlands	7th–9th October 2025
16	Global Produce and Floral Show	Anaheim, US	16th–18th October 2025
17	Agritechnica	Hanover, Germany	9th–15th November 2025
18	International Conference on Urban Agriculture 2025 (ICUA)	Vienna, Austria	27th–28th December 2025

Source: Intro-act, Multiple Web Sources

AGTECH COMP TABLE

		4/10/2025	Share Price ($)	Mkt Cap ($ Mns)	Ent Val ($ Mns)	Price Performance			Sales			EBITDA			Book Value	
						% to High	% to Low	% YTD	FY0	FY1	EV/Sales	FY0	FY1	EV/ EBITDA	Book/ Share	P/ Book
Alternative Foods		Ticker														
1	GIVAUDAN SA	GIVN-CH	4,224.6	39,008	43,379	31%	-4%	2%	8,194	9,291	4.7 x	1,978	2,247	19.3 x	560.83	7.5 x
2	GENERAL MLS INC	GIS	58.1	31,794	45,709	31%	-5%	-11%	19,857	19,553	2.3 x	4,152	3,911	11.7 x	16.92	3.4 x
3	ARCHER DANIELS MIDLAND CO	ADM	44.4	21,309	28,940	49%	-8%	-39%	85,530	89,629	0.3 x	4,284	4,033	7.2 x	46.38	1.0 x
4	INTERNATIONAL FLAVORS&FRAGRA	IFF	73.0	18,661	27,848	46%	-10%	-10%	11,484	10,901	2.6 x	2,205	2,110	13.2 x	54.27	1.3 x
5	KELLANOVA	K	82.3	28,397	34,152	1%	-33%	47%	12,749	12,869	2.7 x	2,262	2,343	14.6 x	10.94	7.5 x
6	KERRY GROUP	KRZ-IE	100.1	16,541	18,520	10%	-21%	15%	8,354	8,066	2.3 x	1,303	1,431	12.9 x	42.09	2.4 x
7	TYSON FOODS INC	TSN	59.8	17,102	28,505	12%	-10%	11%	53,309	53,730	0.5 x	3,020	3,468	8.2 x	52.99	1.1 x
8	SYMRISE AG	SY1-DE	101.7	14,213	16,140	36%	-6%	-8%	5,215	5,833	2.8 x	1,078	1,232	13.1 x	30.77	3.3 x
9	CHINA MENGNIU DAIR	2319-HK	2.5	9,714	12,828	17%	-39%	-8%	12,205	12,295	1.0 x	655	1,351	9.5 x	1.57	1.6 x
10	GEA GROUP AG	G1A-DE	54.8	9,435	8,678	18%	-29%	37%	5,925	6,152	1.4 x	915	973	8.9 x	16.61	3.3 x
11	MONDE NISSIN CORPO	MONDE-PH	0.1	2,192	2,039	70%	-7%	-19%	1,455	1,520	1.3 x	275	279	7.3 x	0.05	2.3 x
12	SENSIENT TECHNOLOGIES CORP	SXT	73.3	3,110	3,753	13%	-10%	11%	1,557	1,601	2.3 x	259	276	13.6 x	25.16	2.9 x
13	MAPLE LEAF FOODS INC NEW	MFI-CA	16.7	2,068	3,253	13%	-18%	-13%	3,424	3,583	0.9 x	387	451	7.2 x	8.64	1.9 x
14	YUAN LONGPING HIGH	000998-CN	1.6	2,082	3,779	11%	-22%	-19%	1,273	1,283	2.9 x	223	232	16.3 x	0.48	3.4 x
15	GINKGO BIOWORKS HOLDINGS INC	DNA	6.8	311	273	602%	-26%	-90%	227	174	1.6 x	-284	-195	-	13.94	0.5 x
16	ADAMA LTD	000553-CN	0.8	1,656	3,836	66%	-24%	-22%	4,079	4,086	0.9 x	394	428	9.0 x	1.12	0.7 x
17	CHENG DE LOLO CO L	000848-CN	1.2	1,250	854	15%	-20%	9%	408	-	-	115	-	-	0.42	2.8 x
18	HAIN CELESTIAL GROUP INC	HAIN	3.4	310	1,061	175%	-5%	-69%	1,736	1,636	0.6 x	155	151	7.0 x	8.92	0.4 x
19	WINALL HI-TECH SEE	300087-CN	1.6	1,480	1,651	33%	-49%	32%	568	651	2.5 x	77	74	22.4 x	0.26	6.1 x
20	SUNOPTA INC	STKL	4.1	475	881	100%	-8%	-26%	724	791	1.1 x	89	100	8.8 x	1.27	3.2 x
21	OATLY GROUP AB	OTLY	9.3	277	671	189%	-35%	-61%	824	839	0.8 x	-35	3	242.6 x	3.50	2.7 x
22	BEYOND MEAT INC	BYND	2.9	220	1,310	257%	-10%	-68%	326	325	4.0 x	-102	-68	-	-7.90	-0.4 x
23	OURO FINO SAUDE	OFSA3-BR	3.6	193	215	36%	-27%	-33%	-	-	-	-	-	-	2.46	1.5 x
24	BIOTALYS NV	BTLS-BE	3.5	133	112	13%	-23%	-31%	3	3	33.9 x	-10	-10	-	0.80	4.5 x
25	MIDSONA AB	MSON.B-SE	0.9	125	177	31%	-21%	6%	337	386	0.5 x	25	31	5.7 x	2.10	0.4 x
26	MUSTGROW BIOLOGICS CORP	MGRO-CA	0.7	35	33	169%	-33%	-31%	3	0	154.5 x	-	-	-	0.05	14.9 x
Precision Agriculture		Ticker														

27	CATERPILLAR INC	CAT	301.0	1,43,862	1,75,987	39%	-11%	2%	64,809	63,962	2.8 x	15,276	13,821	12.7 x	40.78	7.4 x
28	DEERE & CO	DE	452.6	1,22,839	1,79,764	14%	-25%	13%	44,759	38,182	4.7 x	10,305	7,309	24.6 x	82.82	5.5 x
29	CUMMINS INC	CMI	296.6	40,848	47,219	31%	-12%	24%	34,102	34,087	1.4 x	6,326	5,599	8.4 x	74.75	4.0 x
30	INGERSOLL RAND INC	IR	73.3	29,554	33,058	45%	-11%	-5%	7,235	7,507	4.4 x	2,018	2,155	15.3 x	25.27	2.9 x
31	MAHINDRA &MAHINDRA	500520-IN	29.1	36,225	47,534	32%	-18%	40%	11,855	13,276	3.6 x	1,542	1,913	24.9 x	7.39	3.9 x
32	TRACTOR SUPPLY CO	TSCO	51.4	27,314	32,487	20%	-9%	19%	14,883	15,715	2.1 x	1,921	2,045	15.9 x	4.27	12.0 x
33	KUBOTA CORP	6326-JP	10.4	12,021	26,704	62%	-5%	-31%	19,822	21,014	1.3 x	2,854	2,912	9.2 x	14.41	0.7 x
34	CNH INDUSTRIAL NV	CNHI	11.6	14,490	37,905	19%	-20%	-5%	19,836	17,159	2.2 x	1,984	1,376	27.5 x	6.13	1.9 x
35	TRIMBLE INC	TRMB	61.5	15,114	15,989	26%	-21%	16%	3,683	3,433	4.7 x	1,000	969	16.5 x	23.90	2.6 x
36	PENTAIR PLC	PNR	84.0	13,862	15,511	32%	-14%	16%	4,083	4,132	3.8 x	1,020	1,099	14.1 x	21.62	3.9 x
37	TORO CO	TTC	68.9	6,882	7,935	46%	-10%	-28%	4,584	4,612	1.7 x	692	714	11.1 x	14.63	4.7 x
38	AGCO CORP	AGCO	85.8	6,400	8,914	47%	-14%	-29%	11,662	9,563	0.9 x	1,313	953	9.4 x	50.29	1.7 x
39	SITEONE LANDSCAPE SUPPLY INC	SITE	114.2	5,134	5,998	59%	-11%	-30%	4,541	4,761	1.3 x	378	415	14.5 x	35.01	3.3 x
40	TRELLEBORG AB	TBABF	36.6	7,792	9,039	20%	-18%	15%	3,108	3,518	2.6 x	674	791	11.4 x	16.18	2.3 x
41	VALMONT INDS INC	VMI	285.0	5,719	6,496	33%	-29%	22%	4,075	4,105	1.6 x	639	658	9.9 x	76.98	3.7 x
42	BUCHER INDUSTRIES	BUCN-CH	377.7	3,872	3,418	21%	-15%	-10%	3,498	3,644	0.9 x	418	457	7.5 x	208.13	1.8 x
43	ESCORTS KUBOTA LTD	500495-IN	36.1	4,041	3,580	46%	-11%	3%	1,053	1,216	2.9 x	140	143	25.0 x	10.48	3.4 x
44	HUSQVARNA AB	HUSQ.B-SE	4.2	1,949	3,514	115%	-2%	-49%	4,444	4,904	0.7 x	536	674	5.2 x	4.29	1.0 x
45	KADANT INC	KAI	328.6	3,870	4,108	31%	-24%	17%	1,053	1,052	3.9 x	230	226	18.2 x	72.12	4.6 x
46	TOMRA SYSTEMS ASA	TOM-NO	13.0	3,846	4,289	33%	-10%	7%	1,413	1,634	2.6 x	262	327	13.1 x	2.28	5.7 x
47	TURK TRAKTOR	TTRAK.E-TR	18.7	1,867	1,956	80%	-7%	-23%	1,849	2,097	0.9 x	271	346	5.7 x	4.47	4.2 x
48	ALAMO GROUP INC	ALG	172.6	2,082	2,124	29%	-9%	-18%	1,629	1,618	1.3 x	222	222	9.6 x	85.32	2.0 x
49	LINDSAY CORP	LNN	126.3	1,372	1,322	11%	-13%	-2%	607	674	2.0 x	98	108	12.2 x	47.53	2.7 x
50	HELIOS TECHNOLOGIES INC	HLIO	28.7	957	1,384	99%	-14%	-37%	806	797	1.7 x	155	152	9.1 x	25.96	1.1 x
51	TITAN INTL INC ILL	TWI	7.2	452	939	74%	-17%	-52%	1,846	1,848	0.5 x	128	113	8.3 x	7.86	0.9 x
52	GORMAN RUPP CO	GRC	34.2	896	1,259	28%	-11%	-4%	660	684	1.8 x	121	123	10.3 x	14.25	2.4 x
53	GREENWORKS (JIANGS	301260-CN	1.7	355	757	52%	-17%	-32%	637	-	-	-33	-	-	1.25	1.3 x
54	COMER INDS SPA	COM-IT	28.1	807	921	37%	-2%	-13%	1,025	1,000	0.9 x	172	161	5.7 x	19.48	1.4 x
55	ASTEC INDS INC	ASTE	33.3	759	792	34%	-14%	-11%	1,305	1,357	0.6 x	112	114	6.9 x	27.97	1.2 x
56	AG GROWTH INTL INC	AFN-CA	24.0	449	1,011	89%	-10%	-37%	984	930	1.1 x	186	161	6.3 x	10.98	2.2 x
57	TITAN MACHY INC	TITN	15.8	365	1,332	54%	-22%	-45%	2,702	2,182	0.6 x	19	5	276.9 x	26.55	0.6 x
58	DXP ENTERPRISES INC	DXPE	81.5	1,278	1,823	31%	-47%	142%	1,802	1,979	0.9 x	191	219	8.3 x	26.94	3.0 x

59	YAMABIKO CORPO	6250-JP	12.8	564	517	44%	-17%	29%	1,076	-	-	-	-	-	17.48	0.7 x
60	EXEL INDUSTRIES	EXE-FR	41.7	283	428	53%	-11%	-30%	1,141	1,158	0.4 x	91	92	4.7 x	73.75	0.6 x
61	TSUKISHIMA HOLDING	6332-JP	11.5	506	612	3%	-32%	27%	797	-	-	-	-	-	13.81	0.8 x
62	MILLAT TRACTORS	MTL-PK	2.1	400	440	31%	-12%	1%	-	-	-	-	-	-	0.28	7.4 x
63	VST TILLERS TRACT	531266-IN	41.4	358	300	53%	-19%	-9%	191	117	2.6 x	23	13	22.6 x	13.20	3.1 x
64	FIRST TRACTOR CO	38-HK	0.8	311	697	69%	-11%	25%	1,639	1,765	0.4 x	166	193	3.6 x	0.88	0.9 x
65	MAYVILLE ENGR CO INC	MEC	13.2	269	381	75%	-9%	-9%	582	574	0.7 x	64	62	6.2 x	12.33	1.1 x
66	HYLIION HOLDINGS CORP	HYLN	1.3	229	116	213%	-11%	61%	2	22	5.4 x	-57	-50	-	1.41	0.9 x
67	TYM CORPORATION	002900-KR	2.7	121	239	68%	-26%	-34%	-	-	-	-	-	-	6.45	0.4 x
68	EMAK	EM-IT	0.8	131	376	67%	-3%	-34%	654	691	0.5 x	68	75	5.0 x	1.86	0.4 x
69	ISEKI & CO	6310-JP	6.1	140	593	33%	-8%	-19%	1,113	-	-	-	-	-	19.98	0.3 x
70	CARR'S GROUP PLC	CARR-GB	1.5	141	131	29%	-17%	16%	96	110	1.2 x	8	7	18.9 x	1.30	1.2 x
71	POWERFLEET INC	PWFL	5.1	674	917	71%	-27%	49%	134	361	2.5 x	7	74	12.4 x	3.46	1.5 x
72	MARUYAMA MFG CO	6316-JP	12.4	62	69	47%	-6%	-17%	258	-	-	-	-	-	31.77	0.4 x
73	AL GHAZI TRACTORS	AGTL-PK	1.7	99	104	53%	-34%	31%	-	-	-	-	-	-	0.57	3.0 x
74	TAKAKITA CO LTD	6325-JP	2.4	34	19	62%	-6%	-16%	54	48	0.4 x	-	-	-	4.77	0.5 x
Animal Health		Ticker														
75	MERCK & CO INC	MRK	81.9	2,06,908	2,31,472	64%	-7%	-25%	64,168	65,057	3.6 x	25,884	30,311	7.6 x	18.32	4.5 x
76	ZOETIS INC	ZTS	153.6	68,758	73,566	30%	-9%	-22%	9,256	9,338	7.9 x	3,903	4,125	17.8 x	10.64	14.4 x
77	MARUBENI CORP	8002-JP	14.0	23,548	38,768	43%	-9%	-11%	47,425	51,973	0.7 x	2,988	3,458	11.2 x	14.97	0.9 x
78	MUYUAN FOODS CO LT	002714-CN	5.7	31,366	41,547	25%	-15%	0%	19,058	19,233	2.2 x	5,064	4,923	8.4 x	1.84	3.1 x
79	I/MONGOLIA YILI IN	600887-CN	4.0	25,577	27,912	13%	-26%	7%	17,404	16,048	1.7 x	2,194	2,327	12.0 x	1.22	3.3 x
80	WENS FOODSTUFF GRO	300498-CN	2.4	16,070	19,892	40%	-12%	-14%	12,408	14,043	1.4 x	-64	2,054	9.7 x	0.82	3.0 x
81	TELEFONICA BRASIL SA	VIV	8.6	14,072	16,300	21%	-13%	-21%	9,662	10,189	1.6 x	4,046	4,204	3.9 x	6.94	1.2 x
82	HORMEL FOODS CORP	HRL-US	29.7	16,338	18,339	24%	-7%	-7%	11,921	12,127	1.5 x	1,412	1,463	12.5 x	14.60	2.0 x
83	ALFA LAVAL AB	ALFA-SE	37.1	15,338	15,868	32%	-2%	-7%	6,154	7,192	2.2 x	1,180	1,456	10.9 x	10.09	3.7 x
84	ALMARAI CO	2280-SA	14.4	14,384	17,082	14%	-6%	-4%	5,591	5,960	2.9 x	1,369	1,499	11.4 x	5.01	2.9 x
85	TONGWEI CO	600438-CN	2.3	10,536	20,878	91%	-7%	-32%	19,209	13,587	1.5 x	4,099	466	44.8 x	1.61	1.4 x
86	CONAGRA BRANDS INC	CAG-US	25.7	12,263	20,359	29%	-10%	-10%	12,051	11,702	1.7 x	2,398	2,077	9.8 x	18.39	1.4 x
87	HENAN SHUANG INVE	000895-CN	3.8	13,042	12,878	12%	-18%	0%	8,219	8,393	1.5 x	1,136	1,128	11.4 x	0.84	4.5 x
88	BUNGE GLOBAL SA	BG	74.3	9,952	14,295	55%	-9%	-26%	53,108	57,998	0.2 x	2,478	2,286	6.3 x	74.00	1.0 x
89	MOWI ASA	MOWI-NO	16.3	8,438	11,080	26%	-5%	-9%	5,813	6,836	1.6 x	1,246	1,710	6.5 x	8.29	2.0 x

90	EVONIK INDUSTRIES	EVK-DE	19.7	9,161	12,550	24%	-15%	-4%	16,315	16,985	0.7 x	2,223	2,385	5.3 x	20.91	0.9 x
91	SALMAR ASA	SALM-NO	42.4	5,672	7,765	51%	-8%	-24%	2,372	2,832	2.7 x	640	885	8.8 x	12.90	3.3 x
92	ELANCO ANIMAL HEALTH INC	ELAN	9.4	4,657	8,633	100%	-14%	-37%	4,439	4,478	1.9 x	910	852	10.1 x	12.33	0.8 x
93	DARLING INGREDIENTS INC	DAR	30.2	4,770	9,000	60%	-14%	-39%	5,715	5,995	1.5 x	1,080	1,263	7.1 x	27.55	1.1 x
94	NEW HOPE LIUHE CO	000876-CN	1.4	6,558	16,576	12%	-22%	12%	19,555	14,341	1.2 x	146	849	19.5 x	0.75	1.9 x
95	BALCHEM CORP	BCPC	159.6	5,194	5,352	17%	-14%	7%	954	1,009	5.3 x	250	262	20.4 x	35.35	4.5 x
96	NEOGEN CORP	NEOG	5.0	1,089	1,854	270%	-23%	-75%	924	905	2.1 x	213	202	9.2 x	12.30	0.4 x
97	P/F BAKKAFROST	BAKKA-NO	43.1	2,559	3,014	50%	-4%	-18%	1,053	1,188	2.5 x	310	418	7.2 x	28.20	1.5 x
98	QL RESOURCES BHD	7084-MY	1.0	3,784	3,984	10%	-18%	25%	1,417	1,606	2.5 x	200	219	18.2 x	0.20	5.3 x
99	BLUESTAR ADISSEO C	600299-CN	1.3	3,518	3,536	34%	-6%	16%	2,133	2,222	1.6 x	458	445	8.0 x	0.80	1.6 x
100	CRANSWICK	CWK-GB	59.7	3,235	3,350	15%	-16%	24%	3,307	3,460	1.0 x	334	364	9.2 x	22.60	2.6 x
101	BEIJING DABEINONG	002385-CN	0.6	2,738	4,276	17%	-20%	-24%	4,608	4,341	1.0 x	-31	252	16.9 x	0.27	2.3 x
102	FUJIAN SUNNER DEVE	002299-CN	2.3	2,862	3,871	6%	-36%	-5%	2,558	2,679	1.4 x	317	340	11.4 x	1.15	2.0 x
103	LEROY SEAFOOD GROU	LSG-NO	3.9	2,343	3,228	28%	-3%	-5%	2,768	3,047	1.1 x	408	557	5.8 x	3.19	1.2 x
104	NATL AGRI DEVELOPM	6010-SA	6.0	1,809	1,432	58%	-2%	-19%	859	916	1.6 x	170	188	7.6 x	3.80	1.6 x
105	SCHOUW & CO	SCHO-DK	84.1	2,103	2,840	15%	-14%	11%	5,028	5,155	0.6 x	425	446	6.4 x	70.91	1.2 x
106	GENUS	GNS-GB	19.7	1,304	1,610	43%	-12%	-28%	880	859	1.9 x	142	149	10.8 x	10.15	1.9 x
107	TWIST BIOSCIENCE CORP	TWST	40.3	2,402	2,214	51%	-32%	9%	313	376	5.9 x	-192	-110	-	7.65	5.3 x
108	BELL FOOD GROUP AG	BELL-CH	307.5	1,933	2,877	4%	-12%	2%	5,224	5,797	0.5 x	387	427	6.7 x	287.61	1.1 x
109	NISSUI CORPORATION	1332-JP	5.6	1,748	3,101	19%	-8%	4%	5,316	6,060	0.5 x	336	393	7.9 x	5.63	1.0 x
110	CVS GROUP PLC	CVSG-GB	11.9	857	1,212	37%	-18%	-44%	867	885	1.4 x	171	176	6.9 x	4.70	2.5 x
111	DONGWON INDUSTRY	006040-KR	22.8	905	2,548	15%	-14%	-3%	-	-	-	-	-	-	52.72	0.4 x
112	GODREJ AGROVET LTD	540743-IN	8.6	1,645	1,856	23%	-33%	28%	1,145	1,125	1.6 x	84	100	18.5 x	1.44	5.9 x
113	VIMIAN GROUP AB	VIMIAN-SE	3.7	1,938	2,196	23%	-30%	32%	391	488	4.5 x	104	139	15.8 x	1.44	2.6 x
114	BAYWA AG	BYW6-DE	8.9	320	7,870	209%	-24%	-74%	22,810	23,812	0.3 x	133	392	20.1 x	8.76	1.0 x
115	INGHAMS GROUP LTD	ING-AU	1.9	704	1,624	43%	-4%	-30%	2,209	1,904	0.9 x	319	250	6.5 x	0.40	4.7 x
116	MARUHA NICHIRO COR	1333-JP	21.0	1,062	2,979	8%	-13%	7%	6,624	-	-	-	-	-	29.75	0.7 x
117	SHANDONG LONGDA ME	002726-CN	0.8	888	1,259	41%	-7%	-28%	1,840	-	-	-162	-	-	0.20	4.1 x
118	ELDERS LIMITED	ELD-AU	3.5	672	1,154	80%	-2%	-30%	2,030	2,104	0.5 x	131	149	7.7 x	3.26	1.1 x
119	HILTON FOOD GROUP	HFG-GB	10.7	961	1,424	23%	-3%	5%	5,088	5,228	0.3 x	205	207	6.9 x	4.36	2.5 x
120	COFCO JOYCOME FOOD	1610-HK	0.2	927	1,649	33%	-20%	-16%	2,248	2,437	0.7 x	171	230	7.2 x	0.28	0.7 x
121	CHINA MODERN DAIRY	1117-HK	0.1	1,112	2,988	20%	-46%	49%	1,825	1,900	1.6 x	391	334	8.9 x	0.16	0.9 x

122	AUSTRALIAN AGRIC	AAC-AU	0.8	502	835	23%	-4%	-13%	224	-	-	34	-	-	1.61	0.5 x
123	CHINA YOURAN DAIRY	9858-HK	0.3	1,270	4,853	9%	-60%	73%	2,771	2,914	1.7 x	686	571	8.5 x	0.42	0.8 x
124	FARM FRESH BHD	5306-MY	0.4	688	763	24%	-18%	28%	172	222	3.4 x	28	44	17.4 x	0.08	4.5 x
125	Z/J GUOLIAN AQUATI	300094-CN	0.5	553	720	60%	-33%	-26%	-	-	-	-	-	-	0.31	1.6 x
126	OCEANA GROUP	OCE-ZA	2.8	369	508	49%	-3%	-20%	556	503	1.0 x	106	-	-	3.43	0.8 x
127	BENCHMARK HLDGS PL	BMK-GB	0.3	199	283	124%	-6%	-38%	115	107	2.7 x	20	13	21.0 x	0.38	0.7 x
128	SHANDONG DELISI FO	002330-CN	0.6	396	388	17%	-23%	-21%	-	-	-	-	-	-	0.51	1.2 x
129	GFPT PCL	GFPT-TH	0.2	299	382	58%	-4%	-29%	575	565	0.7 x	97	91	4.2 x	0.45	0.5 x
130	AKER BIOMARINE ASA	AKBM-NO	4.6	404	539	124%	-16%	2%	274	236	2.3 x	54	50	10.9 x	2.16	2.1 x
131	ASTRAL FOODS	ARL-ZA	7.8	337	313	43%	-9%	9%	1,136	1,081	0.3 x	80	-	-	6.72	1.2 x
132	JAPFA LTD	UD2-SG	0.5	936	2,318	3%	-61%	196%	4,619	4,609	0.5 x	473	495	4.7 x	0.43	1.1 x
133	SALMON EVOLUTION	SALME-NO	0.5	231	244	57%	0%	-25%	42	50	4.9 x	6	13	18.7 x	0.46	1.1 x
134	ATRIA OYJ	ATRAV-FI	13.6	259	676	3%	-27%	18%	1,831	1,969	0.3 x	133	142	4.8 x	15.43	0.9 x
135	PHIBRO ANIMAL HEALTH CORP	PAHC	19.1	388	1,494	39%	-35%	65%	1,018	1,212	1.2 x	111	171	8.8 x	6.09	3.1 x
136	ANIMALCARE GROUP	ANCR-GB	2.7	187	148	37%	-6%	25%	104	119	1.2 x	18	24	6.1 x	2.08	1.3 x
137	ZOMEDICA CORP	ZOM	0.1	49	-20	290%	-70%	-75%	27	32	-0.6 x	-	-	-	0.20	0.3 x
138	DYADIC INTL INC DEL	DYAI	1.3	38	33	114%	-26%	-22%	3	6	5.5 x	-	-	-	0.08	15.1 x
139	APIAM ANIMAL HEALT	AHX-AU	0.2	42	104	63%	-7%	17%	139	126	0.8 x	-	12	9.0 x	0.41	0.6 x
140	FUKUTOME MEAT PACK	2291-JP	7.0	24	51	40%	-20%	-32%	162	-	-	-	-	-	4.23	1.7 x
141	JAPAN ANIMAL REFER	6039-JP	16.4	47	59	13%	-26%	49%	27	-	-	-	-	-	10.44	1.6 x
142	AQUABOUNTY TECHNOLOGIES INC	AQB	0.6	2	6	239%	-27%	-78%	1	-	-	-	-	-	4.10	0.2 x
CEA		Ticker														
143	SIGNIFY NV	LIGHT-NL	19.2	2,467	3,486	64%	-8%	-42%	6,523	6,851	0.5 x	812	843	4.1 x	27.07	0.7 x
144	GIBRALTAR INDS INC	ROCK	56.4	1,674	1,451	45%	-13%	-29%	1,309	1,425	1.0 x	205	223	6.5 x	34.53	1.6 x
145	CRESCO LABS INC	CL-CA	0.6	190	612	357%	-8%	-58%	724	692	0.9 x	200	162	3.8 x	1.36	0.4 x
146	SNDL INC	SNDL-US	1.4	358	279	111%	-9%	-15%	643	679	0.4 x	1	12	23.3 x	3.00	0.5 x
147	GROWGENERATION CORP	GRWG	0.9	54	34	249%	-6%	-64%	189	174	0.2 x	-15	-1	-	2.02	0.4 x
148	VILLAGE FARMS INTL INC	VFF	0.5	60	101	202%	-16%	-29%	336	350	0.3 x	4	20	5.1 x	2.26	0.2 x
149	HYDROFARM HLDGS GRP INC	HYFM	1.7	8	151	531%	-11%	-82%	190	187	0.8 x	-5	1	105.2 x	48.48	0.0 x
150	LOCAL BOUNTI CORP	LOCL	3.8	40	519	53%	-69%	81%	38	62	8.4 x	-36	-12	-	-11.61	-0.3 x
Seeds		Ticker														
151	SHANDONG DENGHAI S	002041-CN	1.6	1,430	1,042	14%	-35%	-13%	214	199	5.2 x	40	34	31.0 x	0.56	2.9 x

152	SAKATA SEED CORP	1377-JP	21.8	1,010	766	15%	-5%	-16%	562	636	1.2 x	95	112	6.8 x	25.15	0.9 x
153	TRES TENTOS AGROIN	TTEN3-BR	2.4	1,173	1,225	25%	-26%	-5%	2,136	2,767	0.4 x	155	186	6.6 x	1.42	1.7 x
154	CENTRAL GARDEN & PET CO	CENT	35.9	385	3,135	32%	-10%	-28%	3,200	3,219	1.0 x	334	343	9.1 x	23.21	1.5 x
155	KAVERI SEED COMPAN	532899-IN	15.8	813	754	11%	-50%	115%	138	139	5.4 x	34	34	22.2 x	3.58	4.4 x
156	S&W SEED CO	SANW	4.8	10	34	141%	-56%	-64%	60	36	1.0 x	-8	-5	-	13.52	0.4 x
Crop Protection		Ticker														
157	CORTEVA INC	CTVA	58.6	39,997	39,932	13%	-15%	22%	16,900	17,306	2.3 x	3,400	3,736	10.7 x	34.70	1.7 x
158	RENTOKIL INITIAL	RTO-GB	4.0	10,012	13,945	69%	-2%	-29%	7,007	7,111	2.0 x	1,517	1,505	9.3 x	2.17	1.8 x
159	FMC CORP	FMC	37.3	4,655	7,815	84%	-12%	-41%	4,246	4,173	1.9 x	903	903	8.7 x	35.95	1.0 x
160	PI INDUSTRIES	523642-IN	38.0	5,765	5,288	51%	-11%	-10%	920	934	5.7 x	242	256	20.7 x	7.61	5.0 x
161	UPL LIMITED	512070-IN	7.1	5,980	9,716	10%	-25%	5%	5,218	5,313	1.8 x	641	921	10.5 x	3.58	2.0 x
162	BAYER CROPSCIENCE	506285-IN	54.4	2,447	2,306	57%	-11%	-18%	613	617	3.7 x	116	79	29.3 x	8.02	6.8 x
163	SICHUAN HEBANG BIO	603077-CN	0.2	2,055	2,263	44%	-5%	-23%	-	-	-	-	-	-	0.32	0.7 x
164	JIANGSU YANGNONG C	600486-CN	6.8	2,756	2,908	45%	-4%	-23%	1,437	1,633	1.8 x	286	344	8.5 x	3.60	1.9 x
165	SUMITOMO CHEMICAL	542920-IN	6.4	3,211	3,093	17%	-30%	32%	342	372	8.3 x	57	76	40.8 x	0.64	10.1 x
166	TESSENDERLO GROUP	TESB-BE	25.0	1,504	1,505	15%	-23%	-19%	2,867	3,049	0.5 x	287	336	4.5 x	33.86	0.7 x
167	ATUL LTD	500027-IN	59.8	1,759	1,734	63%	-5%	-30%	566	644	2.7 x	76	108	16.0 x	22.26	2.7 x
168	SHANDONG WEIFANG R	301035-CN	7.3	2,055	3,960	23%	-32%	-26%	1,585	1,743	2.3 x	174	191	20.7 x	3.22	2.3 x
169	KWS SAAT SE & CO.	KWS-DE	58.6	1,934	2,339	30%	-15%	-1%	1,874	1,877	1.2 x	453	416	5.6 x	45.91	1.3 x
170	ANHUI GUANGXIN AGR	603599-CN	1.5	1,355	402	47%	-9%	-27%	810	-	-	242	-	-	1.44	1.0 x
171	NUFARM LTD	NUF-AU	2.2	841	1,452	61%	-5%	-38%	2,169	2,159	0.7 x	203	233	6.2 x	3.20	0.7 x
172	ZHEJIANG XINAN CHE	600596-CN	1.1	1,207	1,566	30%	-10%	-18%	2,019	-	-	119	-	-	1.29	0.8 x
173	CORBION N.V.	CRBN-NL	19.2	1,118	1,592	52%	-3%	-10%	1,341	1,507	1.1 x	182	241	6.6 x	14.35	1.3 x
174	LIER CHEMICAL CO	002258-CN	1.3	1,079	1,710	6%	-31%	-20%	1,007	1,004	1.7 x	152	197	8.7 x	1.33	1.0 x
175	LIANHE CHEMICAL TE	002250-CN	0.8	734	1,323	31%	-23%	-19%	889	909	1.5 x	50	174	7.6 x	0.97	0.8 x
176	BIOCERES CROP SOLUTIONS CORP	BIOX	4.2	260	561	218%	-15%	-70%	465	382	1.5 x	84	53	10.6 x	4.98	0.8 x
177	NANTONG JIANGSHAN	600389-CN	1.9	837	834	31%	-16%	-21%	702	-	-	74	-	-	1.21	1.6 x
178	SICHUAN GUOGUANG A	002749-CN	2.1	1,001	832	25%	-27%	29%	273	307	2.7 x	-	-	-	0.63	3.4 x
179	HEXTAR GLOBAL BHD	5151-MY	0.2	767	838	16%	-11%	17%	167	187	4.5 x	30	39	21.5 x	0.01	14.9 x
180	SHENZHEN NOPOSION	002215-CN	1.2	958	1,938	37%	-27%	4%	569	-	-	83	-	-	0.53	2.3 x
181	KUMIAI CHEM IND CO	4996-JP	5.0	661	1,010	20%	-10%	-4%	1,044	1,136	0.9 x	-	115	8.8 x	8.25	0.6 x
182	BSM CHEMICAL CO LT	300796-CN	1.2	427	485	101%	-7%	-48%	97	-	-	22	-	-	0.67	1.8 x

183	DHANUKA AGRITECH	507717-IN	14.9	678	669	55%	-17%	17%	211	232	2.9 x	40	46	14.7 x	3.30	4.5 x
184	HAILIR PESTICIDESA	603639-CN	1.6	534	604	42%	-8%	-29%	607	-	-	-	-	-	1.40	1.1 x
185	ANHUI HUILONG AGRI	002556-CN	0.8	716	1,338	32%	-27%	-4%	-	2,467	0.5 x	-	97	13.8 x	0.55	1.4 x
186	CHUNBO CO LTD	278280-KR	20.4	204	424	197%	-1%	-76%	100	124	3.4 x	-1	26	16.4 x	25.02	0.8 x
187	RALLIS INDIA LTD	500355-IN	2.4	468	450	87%	-7%	-20%	318	311	1.4 x	37	37	12.2 x	1.16	2.1 x
188	INDIA PESTICIDES	543311-IN	1.5	172	161	112%	-8%	-66%	-	-	-	-	-	-	0.88	1.7 x
189	CARIBOU BIOSCIENCES INC	CRBU	0.9	83	-100	413%	-26%	-84%	10	9	-10.9 x	-163	-178	-	2.74	0.3 x
190	JIANGSU CHANGQING	002391-CN	0.6	416	798	29%	-9%	-26%	499	-	-	66	-	-	0.96	0.7 x
191	NIHON NOHYAKU CO	4997-JP	4.7	385	422	13%	-17%	7%	661	-	-	-	-	-	6.74	0.7 x
192	PRECIGEN INC	PGEN	1.4	409	345	56%	-53%	4%	4	11	31.0 x	-135	-87	-	0.13	10.6 x
193	LIMIN GROUP CO LTD	002734-CN	1.6	580	874	5%	-47%	46%	583	566	1.5 x	67	32	27.1 x	1.04	1.5 x
194	AMERICAN VANGUARD CORP	AVD	3.7	106	295	245%	-11%	-66%	551	576	0.5 x	42	50	5.9 x	11.46	0.3 x
195	JIANGSU FLAG CHEMI	300575-CN	0.8	271	545	41%	-10%	-25%	-	-	-	-	-	-	0.63	1.3 x
196	CHEERWIN GRP LTD	6601-HK	0.3	349	-10	17%	-25%	39%	251	275	0.0 x	30	34	-0.3 x	0.31	0.8 x
197	ASTEC LIFESCIENCES	533138-IN	8.0	158	217	121%	-7%	-39%	-	-	-	-	-	-	1.74	4.6 x
198	INSECTICIDES INDIA	532851-IN	7.2	210	213	79%	-21%	-11%	236	249	0.9 x	20	24	8.8 x	4.42	1.6 x
199	HOKKO CHEMICAL IND	4992-JP	7.5	226	142	50%	-10%	11%	296	333	0.4 x	-	-	-	11.61	0.6 x
200	OAT AGRIO CO LTD	4979-JP	12.4	137	176	22%	-26%	10%	194	-	-	-	-	-	10.47	1.2 x
201	FUMAKILLA LTD	4998-JP	7.1	117	152	15%	-6%	-12%	436	-	-	26	-	-	9.61	0.7 x
Fertilizers		Ticker														
202	BASF SE	BAS-DE	43.8	39,191	62,282	36%	-7%	-19%	70,540	73,990	0.8 x	8,494	8,929	7.0 x	43.08	1.0 x
203	DUPONT DE NEMOURS INC	DD	62.0	25,926	32,090	45%	-13%	-19%	12,386	12,809	2.5 x	3,144	3,340	9.6 x	55.86	1.1 x
204	NUTRIEN LTD	NTR-CA	48.1	23,502	35,491	26%	-9%	-15%	25,016	26,214	1.4 x	5,355	5,465	6.5 x	49.67	1.0 x
205	INDUSTRIES OF QATA	IQCD-QA	3.3	20,156	17,450	14%	-7%	-6%	4,614	3,840	4.5 x	977	1,362	12.8 x	1.71	1.9 x
206	SABIC AGRI-NUTRIEN	2020-SA	26.8	12,781	10,043	24%	-4%	-27%	2,949	2,938	3.4 x	1,063	1,154	8.7 x	10.35	2.6 x
207	CF INDS HLDGS INC	CF	70.5	11,736	15,975	39%	-4%	-11%	5,936	6,146	2.6 x	2,289	2,269	7.0 x	29.34	2.4 x
208	QINGHAI SALT LAKE	000792-CN	2.2	11,656	9,158	31%	-14%	-2%	2,084	2,302	4.0 x	865	1,065	8.6 x	0.93	2.4 x
209	MOSAIC CO NEW	MOS	24.7	7,822	12,116	35%	-9%	-31%	11,123	12,126	1.0 x	2,196	2,357	5.1 x	36.23	0.7 x
210	EASTMAN CHEM CO	EMN	81.5	9,408	13,806	41%	-13%	-9%	9,382	9,564	1.4 x	1,803	1,867	7.4 x	50.20	1.6 x
211	YARA INTERNATIONAL	YAR-NO	27.0	6,872	10,619	22%	-4%	-24%	13,868	14,949	0.7 x	1,981	2,241	4.7 x	29.58	0.9 x
212	S/DONG HUALU-HENG	600426-CN	2.9	6,199	7,662	51%	-8%	-25%	4,712	4,875	1.6 x	1,098	1,126	6.8 x	2.02	1.4 x
213	OCI N.V.	OCI-NL	11.2	2,375	1,125	195%	-8%	-61%	4,084	2,125	0.5 x	202	326	3.5 x	11.09	1.0 x

214	MITSUI CHEMICALS	4183-JP	19.3	3,869	7,794	62%	-7%	-30%	11,265	12,533	0.6 x	1,102	1,357	5.7 x	30.97	0.6 x
215	SOCIEDAD QUIMICA Y MINERA DE	SQM	35.5	5,070	7,498	46%	-12%	-41%	4,529	4,575	1.6 x	1,472	1,609	4.7 x	17.74	2.0 x
216	ICL GROUP LTD	ICL-IL	5.8	7,461	9,575	11%	-34%	14%	6,841	7,106	1.3 x	1,469	1,560	6.1 x	4.42	1.3 x
217	NISSAN CHEMICAL CO	4021-JP	27.0	3,694	3,799	38%	-3%	-30%	1,450	1,701	2.2 x	401	484	7.8 x	11.05	2.4 x
218	YUNNAN YUNTIANHUA	600096-CN	3.0	5,538	7,042	17%	-16%	38%	8,472	8,544	0.8 x	1,397	1,376	5.1 x	1.69	1.8 x
219	SUMITOMO CHEM CO	4005-JP	2.0	3,344	12,149	54%	-5%	-16%	15,753	17,981	0.7 x	-2,133	2,232	5.4 x	3.87	0.5 x
220	ABOU KIR FERTILIZE	ABUK-EG	1.0	1,251	717	59%	-5%	-63%	377	421	1.7 x	135	146	4.9 x	0.36	2.7 x
221	COROMANDEL INTL	506395-IN	23.1	6,815	6,460	8%	-44%	54%	2,648	2,776	2.3 x	288	309	20.9 x	4.03	5.7 x
222	INCITEC PIVOT	IPL-AU	1.3	2,470	3,085	67%	-3%	-32%	3,467	3,242	1.0 x	607	532	5.8 x	1.60	0.8 x
223	SCOTTS MIRACLE-GRO CO	SMG	52.6	3,022	5,990	79%	-12%	-18%	3,553	3,541	1.7 x	510	576	10.4 x	-8.34	-6.3 x
224	TATA CHEMICALS	500770-IN	9.4	2,385	3,006	58%	-8%	-29%	1,847	1,736	1.7 x	341	240	12.5 x	10.19	0.9 x
225	K+S AG	SDF-DE	13.6	2,434	2,733	17%	-21%	-14%	3,973	4,079	0.7 x	607	621	4.4 x	37.47	0.4 x
226	SICHUAN NEW ENERGY	000155-CN	1.4	2,545	3,339	44%	-10%	-26%	457	-	-	304	-	-	0.76	1.8 x
227	CHAMBAL FERTILISER	500085-IN	7.4	2,947	2,922	1%	-46%	64%	2,151	1,924	1.5 x	245	301	9.7 x	2.40	3.1 x
228	YONFER AGRIC TECH	000902-CN	1.8	2,294	2,310	15%	-21%	14%	2,086	2,237	1.0 x	283	315	7.3 x	1.10	1.7 x
229	ANDERSONS INC	ANDE	38.9	1,329	1,903	58%	-8%	-32%	11,258	11,696	0.2 x	363	369	5.2 x	40.17	1.0 x
230	GUJARAT STATE FER	500690-IN	2.0	793	517	65%	-9%	-31%	-	1,101	0.5 x	-	-	-	3.94	0.5 x
231	E.I.D.-PARRY(INDIA	500125-IN	8.7	1,545	1,825	35%	-19%	30%	-	-	-	-	10	180.8 x	4.89	1.8 x
232	HUBEI YIHUA CHEM	000422-CN	1.6	1,725	3,310	43%	-21%	11%	2,355	2,352	1.4 x	264	316	10.5 x	0.96	1.7 x
233	CHENGDU WINTRUE HO	002539-CN	1.0	1,241	2,386	27%	-14%	-11%	2,811	3,096	0.8 x	-	-	-	1.01	1.0 x
234	SICHUAN DEV LOMON	002312-CN	1.5	2,555	3,179	121%	-41%	47%	1,064	-	-	132	-	-	0.68	2.1 x
235	DEEPAK FERTILISERS	500645-IN	13.4	1,687	2,114	28%	-55%	64%	1,041	1,143	1.9 x	154	226	9.4 x	5.26	2.5 x
236	COMPASS MINERALS INTL INC	CMP	9.9	411	1,340	60%	-24%	-61%	1,117	1,161	1.2 x	206	174	7.7 x	6.34	1.6 x
237	PARADEEP PHOSPHATE	543530-IN	1.3	1,096	1,563	12%	-45%	65%	1,386	1,444	1.1 x	78	127	12.3 x	0.54	2.5 x
238	SINOFERT HOLDINGS	297-HK	0.1	1,051	679	13%	-33%	28%	2,928	3,088	0.2 x	174	234	2.9 x	0.20	0.7 x
239	CVR PARTNERS LP	UAN	69.6	736	1,230	28%	-10%	6%	525	-	-	-	-	-	27.73	2.5 x
240	PETROVIETNAM CA MA	DCM-VN	1.0	511	215	70%	-2%	-28%	535	549	0.4 x	56	66	3.2 x	0.75	1.3 x
241	ADVANSIX INC	ASIX	21.1	565	896	56%	-13%	-30%	1,518	1,569	0.6 x	142	210	4.3 x	28.97	0.7 x
242	ANHUI SIERTE FERTI	002538-CN	0.8	657	564	33%	-24%	-10%	-	-	-	-	-	-	0.85	0.9 x
243	GRUPA AZOTY SA	ATT-PL	4.9	485	2,737	30%	-16%	-22%	3,362	3,494	0.8 x	-444	-102	-	12.94	0.4 x
244	ENGRO FERTILIZER L	EFERT-PK	0.7	919	1,012	30%	-25%	72%	911	1,008	1.0 x	-	-	-	0.13	5.4 x
245	OMNIA HLDGS	OMN-ZA	3.2	525	480	33%	-14%	-6%	1,184	1,180	0.4 x	123	-	-	3.36	1.0 x

246	LSB INDS INC	LXU	5.4	391	733	91%	-10%	-42%	522	549	1.3 x	121	134	5.5 x	6.86	0.8 x
247	PETROVIETNAM FERT	DPM-VN	1.1	418	148	47%	-1%	-22%	533	507	0.3 x	37	49	3.0 x	1.10	1.0 x
248	FAUJI FERTILIZER	FFC-PK	1.3	1,631	1,071	22%	-63%	218%	-	-	-	-	-	-	0.60	2.1 x
249	CHINA XLX FERTILSE	1866-HK	0.5	662	2,595	19%	-16%	16%	3,189	3,066	0.8 x	595	525	4.9 x	0.93	0.6 x
250	CHINA BLUECHEMICAL	3983-HK	0.2	419	-287	50%	-6%	-8%	1,651	1,634	-0.2 x	228	197	-1.5 x	0.54	0.4 x
251	KUNMING CHUAN JIN	300505-CN	2.1	564	570	28%	-29%	-13%	-	-	-	-	-	-	1.27	1.6 x
252	FATIMA FERTILIZER	FATIMA-PK	0.3	640	726	11%	-52%	141%	-	-	-	-	-	-	0.24	1.2 x
253	INTREPID POTASH INC	IPI	26.5	351	313	18%	-29%	11%	255	222	1.4 x	33	37	8.4 x	36.75	0.7 x
254	MANGALORE CHEMICAL	530011-IN	2.1	247	332	6%	-45%	42%	457	384	0.9 x	45	40	8.3 x	0.98	2.1 x
255	ITAFOS INC	IFOS-CA	1.5	286	320	14%	-36%	50%	491	498	0.6 x	159	125	2.6 x	1.81	0.8 x
256	VALUENCE HOLDINGS	9270-JP	4.9	68	148	72%	-15%	-50%	544	581	0.3 x	-	-	-	3.41	1.4 x
257	KATAKURA & CO-OP A	4031-JP	5.5	56	117	40%	-6%	-17%	265	-	-	-	-	-	17.40	0.3 x
258	BINH DIEN FERTILIZ	BFC-VN	1.3	76	91	50%	-20%	30%	371	364	0.3 x	-	-	-	0.86	1.5 x
259	VERDE AGRITECH LTD	NPK-CA	0.4	20	45	124%	-2%	-68%	15	-	-	-2	-	-	0.40	1.0 x
260	NEOHIM AD	NEOH-BG	13.5	36	20	19%	-29%	0%	-	-	-	-	-	-	31.49	0.4 x
Food Processing		Ticker														
261	NESTLE SA	NESN-CH	99.0	2,59,491	3,16,928	11%	-19%	-13%	1,00,927	1,11,872	2.8 x	21,006	22,153	14.3 x	15.78	6.3 x
262	UNILEVER PLC	ULVR-GB	57.4	1,43,822	2,53,942	15%	-19%	19%	63,395	68,835	3.7 x	13,254	14,569	17.4 x	8.61	6.7 x
263	ECOLAB INC	ECL	237.6	67,377	74,435	15%	-9%	20%	15,741	15,932	4.7 x	3,565	3,846	19.4 x	30.91	7.7 x
264	DANONE	BN-FR	77.0	52,299	58,585	7%	-22%	25%	28,763	31,003	1.9 x	4,881	5,354	10.9 x	29.84	2.6 x
265	BALL CORP	BALL	46.7	13,181	18,373	53%	-7%	-19%	11,795	12,116	1.5 x	1,937	1,980	9.3 x	20.26	2.3 x
266	AVERY DENNISON CORP	AVY	168.9	13,334	16,345	38%	-7%	-16%	8,756	8,905	1.8 x	1,434	1,475	11.1 x	28.98	5.8 x
267	PACKAGING CORP AMER	PKG	189.4	17,036	19,020	32%	-11%	16%	8,383	8,899	2.1 x	1,645	1,890	10.1 x	49.04	3.9 x
268	LAMB WESTON HLDGS INC	LW	55.3	7,798	11,999	62%	-13%	-49%	6,468	6,364	1.9 x	1,417	1,185	10.1 x	11.58	4.8 x
269	INTERNATIONAL PAPER CO	IP	49.0	25,876	32,835	23%	-32%	36%	18,619	26,840	1.2 x	1,986	3,661	9.0 x	23.53	2.1 x
270	WH GROUP LTD	288-HK	0.8	10,785	13,851	13%	-26%	30%	25,941	26,629	0.5 x	3,124	3,191	4.3 x	0.79	1.1 x
271	INGREDION INC	INGR	128.1	8,222	9,275	21%	-15%	18%	7,430	7,491	1.2 x	1,208	1,283	7.2 x	58.98	2.2 x
272	PILGRIMS PRIDE CORP	PPC	50.4	11,956	13,383	13%	-33%	82%	17,878	18,176	0.7 x	2,216	2,110	6.3 x	17.88	2.8 x
273	SPROUTS FMRS MKT INC	SFM	153.7	15,064	16,476	16%	-60%	219%	7,719	8,675	1.9 x	646	771	21.4 x	13.32	11.5 x
274	SEALED AIR CORP NEW	SEE	27.0	3,933	8,069	52%	-16%	-26%	5,393	5,310	1.5 x	1,111	1,113	7.3 x	4.29	6.3 x
275	SILGAN HLDGS INC	SLGN	48.7	5,199	8,733	19%	-15%	8%	5,855	6,427	1.4 x	879	1,029	8.5 x	18.63	2.6 x
276	EXPONENT INC	EXPO	79.8	4,055	3,877	45%	-7%	-9%	518	533	7.3 x	163	159	24.4 x	8.29	9.6 x

277	SCG PACKAGING PCL	SCGP-TH	0.3	1,391	3,479	206%	-4%	-69%	3,950	4,064	0.9 x	482	488	7.1 x	0.53	0.6 x
278	NH FOODS LTD	2282-JP	34.2	3,390	4,424	15%	-17%	5%	8,362	9,428	0.5 x	486	532	8.3 x	35.95	1.0 x
279	CJ CHEILJEDANG	097950-KR	154.0	2,318	12,245	91%	0%	-37%	20,229	20,426	0.6 x	2,110	2,102	5.8 x	333.28	0.5 x
280	JOHN BEAN TECHNOLOGIES CORP	JBT	102.5	5,327	5,363	36%	-19%	3%	1,716	3,302	1.6 x	295	578	9.3 x	48.47	2.1 x
281	SUEDZUCKER AG	SZU-DE	12.0	2,450	6,124	30%	-14%	-23%	11,184	10,757	0.6 x	1,433	679	9.0 x	14.05	0.9 x
282	ASIA-POTASH INTERN	000893-CN	3.2	2,978	3,319	14%	-42%	-11%	538	502	6.6 x	261	226	14.7 x	1.76	1.8 x
283	CAL MAINE FOODS INC	CALM	92.6	4,096	3,306	26%	-40%	61%	2,326	4,039	0.8 x	418	1,703	1.9 x	48.56	1.9 x
284	SAO MARTINHO SA	SMTO3-BR	3.3	1,097	2,396	93%	-6%	-45%	1,306	1,224	2.0 x	586	588	4.1 x	3.44	1.0 x
285	MGP INGREDIENTS INC NEW	MGPI	28.8	613	926	221%	-13%	-71%	704	531	1.7 x	196	109	8.5 x	39.36	0.7 x
286	HAWKINS INC	HWKN	112.3	2,351	2,467	24%	-36%	60%	919	958	2.6 x	143	162	15.3 x	22.01	5.1 x
287	BALRAMPUR CHINI MI	500038-IN	6.0	1,211	1,452	38%	-30%	22%	671	644	2.3 x	94	84	17.4 x	2.06	2.9 x
288	UNITED NAT FOODS INC	UNFI	25.2	1,524	5,199	38%	-66%	55%	30,980	31,568	0.2 x	518	568	9.2 x	26.86	0.9 x
289	MITSUI DM SUGAR HO	2109-JP	22.0	717	801	13%	-14%	5%	1,099	-	-	-	-	-	24.20	0.9 x
290	CALAVO GROWERS INC	CVGW	22.9	408	386	34%	-11%	-22%	662	691	0.6 x	37	51	7.6 x	11.29	2.0 x
291	JALLES MACHADO SA	JALL3-BR	0.7	198	744	136%	-6%	-60%	352	395	1.9 x	234	241	3.1 x	1.17	0.6 x
292	ROGERS SUGAR INC	RSI-CA	3.8	491	791	20%	-5%	-6%	879	907	0.9 x	101	105	7.5 x	2.33	1.6 x
293	ORIGIN ENTERPRISES	OIZ-IE	3.3	345	694	25%	-17%	-14%	2,281	2,377	0.3 x	122	126	5.5 x	4.12	0.8 x
294	BONDUELLE	BON-FR	7.9	257	1,035	16%	-21%	-34%	2,603	2,444	0.4 x	179	182	5.7 x	20.64	0.4 x
295	NATURAL GROCERS BY VITAMIN C	NGVC	44.9	1,030	1,371	13%	-65%	181%	1,242	1,338	1.0 x	78	87	15.8 x	7.93	5.7 x
296	RANPAK HOLDINGS CORP	PACK	4.2	355	710	115%	-18%	-28%	369	396	1.8 x	84	92	7.7 x	6.58	0.6 x
297	KHON KAEN SUGAR IN	KSL-TH	0.0	174	776	83%	-6%	-49%	476	483	1.6 x	88	89	8.7 x	0.15	0.3 x
298	SELECT HARVESTS	SHV-AU	3.1	437	713	8%	-36%	58%	220	213	3.4 x	31	56	12.6 x	2.18	1.4 x
299	BBB FOODS INC	TBBB	26.4	1,640	3,174	33%	-27%	NM	2,736	3,504	0.9 x	133	191	16.6 x	1.79	14.8 x
300	SCALES CORP LT	SCL-NZ	2.3	327	365	10%	-20%	4%	334	339	1.1 x	52	54	6.7 x	1.46	1.6 x
301	BENSON HILL INC	BHIL	0.1	1	81	7053%	-56%	-98%	-	-	-	-	-	-	4.81	0.0 x
AgriFinance		Ticker														
302	KUALA LUMPUR KEPG	2445-MY	4.2	4,643	7,110	24%	-2%	-12%	4,997	5,658	1.3 x	628	737	9.7 x	2.83	1.5 x
303	HEILONGJIANG AGRI	600598-CN	2.6	4,591	4,066	0%	-35%	53%	735	751	5.4 x	179	182	22.3 x	0.60	4.3 x
304	SIMMONS 1ST NATL CORP	SFNC	18.9	2,380	3,168	37%	-15%	-5%	804	867	3.7 x	-	-	-	28.08	0.7 x
305	SLC AGRICOLA SA	SLCE3-BR	3.1	1,369	2,461	27%	-11%	-20%	1,255	1,315	1.9 x	336	437	5.6 x	1.58	2.0 x
306	BRASILAGRO	AGRO3-BR	3.6	372	555	44%	-6%	-32%	197	231	2.4 x	49	94	5.9 x	3.86	0.9 x
307	GLADSTONE LD CORP	LAND	9.4	338	852	64%	-7%	-35%	85	80	10.7 x	67	63	13.4 x	18.99	0.5 x

308	TEJON RANCH CO	TRC	15.7	422	450	26%	-6%	-9%	42	46	9.8 x	-	-	-	17.66	0.9 x
309	GREAT AJAX CORP	AJX	2.7	129	787	44%	-16%	-49%	-55	27	29.6 x	-	-	-	5.44	0.5 x
Food Producers		Ticker														
310	TATA CONSUMER PROD	500800-IN	12.6	12,444	12,704	18%	-17%	-3%	1,854	2,030	6.3 x	278	289	44.0 x	2.26	5.6 x
311	SD GUTHRIE BERHAD	5285-MY	1.0	6,799	8,630	20%	-10%	1%	4,462	4,436	1.9 x	944	901	9.6 x	0.56	1.8 x
312	TREASURY WINE ESTA	TWE-AU	5.0	4,093	5,257	69%	-2%	-31%	1,816	1,821	2.9 x	541	561	9.4 x	3.73	1.4 x
313	IOI CORP	1961-MY	0.8	4,837	5,160	21%	-1%	-9%	2,209	2,458	2.1 x	377	424	12.2 x	0.44	1.8 x
314	PPB GROUP BERHAD	4065-MY	2.4	3,398	3,352	52%	-2%	-24%	1,207	1,265	2.6 x	80	88	38.0 x	3.99	0.6 x
315	GOLDEN AGRI RESOUR	E5H-SG	0.2	2,288	5,242	26%	-6%	-8%	10,910	-	-	-	-	-	0.41	0.4 x
316	FIRST RESOURCES LT	EB5-SG	1.1	1,705	1,889	25%	-8%	2%	1,039	1,085	1.7 x	378	432	4.4 x	0.90	1.2 x
317	UTD PLANT BERHAD	2089-MY	4.6	2,891	2,779	17%	-28%	80%	497	536	5.2 x	232	252	11.0 x	1.01	4.6 x
318	GENTING PLANTATION	2291-MY	1.1	982	1,330	23%	-1%	-11%	664	706	1.9 x	186	179	7.4 x	1.27	0.9 x
319	FRESH DEL MONTE PRODUCE INC	FDP	30.6	1,466	1,861	15%	-31%	16%	4,280	4,357	0.4 x	238	261	7.1 x	41.52	0.7 x
320	FGV HOLDINGS BHD	5222-MY	0.2	820	1,814	36%	-1%	-25%	4,965	5,369	0.3 x	364	348	5.2 x	0.36	0.6 x
321	ADECOAGRO S A	AGRO	10.8	1,083	1,986	12%	-19%	-3%	1,468	1,519	1.3 x	484	435	4.6 x	13.68	0.8 x
322	ASTRA AGRO LESTARI	AALI-ID	0.3	602	634	45%	-1%	-31%	1,336	1,335	0.5 x	168	148	4.3 x	0.71	0.4 x
323	BUMITAMA AGRI LTD	P8Z-SG	0.6	992	1,267	21%	-14%	25%	1,017	988	1.3 x	271	276	4.6 x	0.52	1.1 x
324	SAWIT SUMBERMAS SA	SSMS-ID	0.1	957	1,340	54%	-42%	48%	673	720	1.9 x	140	174	7.7 x	0.02	6.0 x
325	MISSION PRODUCE INC	AVO	10.0	712	918	52%	-5%	-1%	1,235	1,193	0.8 x	108	95	9.7 x	7.75	1.3 x
326	VITAL FARMS INC	VITL	33.8	1,495	1,354	43%	-29%	115%	606	741	1.8 x	87	101	13.4 x	6.11	5.5 x
327	HOKUTO CORP	1379-JP	12.4	415	467	6%	-12%	7%	509	-	-	-	-	-	11.86	1.0 x
328	LIMONEIRA CO	LMNR	16.7	301	382	75%	-7%	-19%	192	180	2.1 x	27	15	25.9 x	9.76	1.7 x
329	TSH RESOURCES BHD	9059-MY	0.2	323	389	24%	-5%	10%	229	241	1.6 x	75	69	5.6 x	0.32	0.7 x
330	ALICO INC	ALCO	29.0	221	327	18%	-17%	0%	47	56	5.8 x	-4	-1	-	31.68	0.9 x
331	AUGA GROUP AB	AUG1L-LT	0.1	23	156	226%	-51%	-71%	-	-	-	-	-	-	0.26	0.4 x
332	SEEKA LTD	SEK-NZ	1.9	84	192	21%	-29%	24%	-	-	-	-	-	-	3.63	0.5 x
333	BORGES AGRICULTURA	BAIN-ES	3.8	87	68	2%	-28%	32%	-	132	0.5 x	-	6	11.2 x	3.70	1.0 x

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